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THE
HARVARD MEDICAL SCHOOL
LONGWOOD AVENUE, BOSTON, MASS.

1910-11

WITH AN ANNOUNCEMENT FOR 1911-12



Published by Harvard University

ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

OF

HARVARD UNIVERSITY

FOR

1910-11

WITH AN ANNOUNCEMENT FOR 1911-12



Published by the University

1910

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1910/11 - 1911/12

CONTENTS

	PAGE
CALENDAR	2
MEDICAL SCHOOL CALENDAR	5
FACULTY OF MEDICINE	7
STANDING COMMITTEES FOR THE MEDICAL SCHOOL	10
FACULTY COUNCIL	10
GENERAL STATEMENT	11
BUILDINGS AND HOSPITAL FACILITIES	12
ADMINISTRATIVE BOARD OF THE MEDICAL SCHOOL	13
STANDING COMMITTEES OF THE ADMINISTRATIVE BOARD	14
INSTRUCTORS, LECTURERS, AND ASSISTANTS	14
AUSTIN TEACHING FELLOWS	19
ADMISSION OF STUDENTS	20
ADMISSION TO ADVANCED STANDING	21
DIVISION OF STUDENTS	22
TABLE OF DIVISION OF STUDIES	23
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	24
Anatomy	24
Comparative Anatomy	26
Physiology	27
Comparative Physiology	30
Biological Chemistry	30
Bacteriology	31
Pathology	32
Legal Medicine	33
Comparative Pathology	34
Neuropathology	34
Preventive Medicine and Hygiene	35
Materia Medica and Therapeutics	36
Theory and Practice of Physic	37
Clinical Medicine	39
Tropical Medicine	40
Pediatrics	41
Roentgen Ray	42
Surgery	42

	PAGE
Orthopedics	45
Obstetrics and Gynaecology	46
Dermatology and Syphilis	48
Neurology and Psychiatry	49
Ophthalmology	51
Otology	51
Laryngology and Rhinology	52
FOURTH-YEAR ELECTIVES	53
FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS	53
EXAMINATIONS	67
DEGREES	68
FEES AND EXPENSES	70
CLINICAL ADVANTAGES	72
HOSPITAL APPOINTMENTS	75
WARREN MUSEUM	76
LIBRARIES	76
FELLOWSHIPS AND SCHOLARSHIPS	77
PRIZES	82
COURSES FOR SPECIAL STUDENTS	84
COURSES OF STUDY FOR GRADUATES	86
SUMMER SCHOOL OF MEDICINE	87
LIST OF GRADUATE COURSES	88
LIST OF SUMMER COURSES	96
TABULAR VIEW OF UNDERGRADUATE COURSES	106
DEGREES CONFERRED IN 1910	112
ANNUAL EXAMINATION PAPERS	114
STUDENTS	128
ANNOUNCEMENT FOR 1911-12	152

MEDICAL SCHOOL CALENDAR

1910.

- Sept. 22, Thursday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 28, Wednesday.* Examination in Chemistry for admission.
- Sept. 29, Thursday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Wednesday.* Columbus Day : a holiday.
- Nov. 1, Tuesday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 24, Thursday.* Thanksgiving Day : a holiday.
- Nov. 30, Wednesday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1910, TO JAN. 2, 1911, INCLUSIVE

- Dec. 31, Saturday.* Last day for receiving dissertations for the Boylston Medical Prizes.

1911.

- Jan. 14, Monday.* Last day for receiving applications for admission to examinations for the degrees of Ph.D. and A.M. in 1911.
- Jan. 27, Friday.* Mid-year Examinations begin.
- Jan. 31, Tuesday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Wednesday.* **Second half-year begins.**
- Feb. 22, Wednesday.* Washington's Birthday : a holiday.
- April 1, Saturday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 16 TO APRIL 23, INCLUSIVE

<i>May 1, Monday.</i>	Last day for receiving applications for the Bullard Fellowships.
<i>May 1, Monday.</i>	Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
<i>May 1, Monday.</i>	Last day for receiving applications for Scholarships for 1911-12 (except the Cheever and Hayden Scholarships).
<i>May 1, Monday.</i>	Last day for receiving applications of candidates for the degree of M.D. in 1911.
<i>May 29, Monday.</i>	Examinations begin.
<i>May 30, Tuesday.</i>	Memorial Day: a holiday.
<i>June 16, Friday.</i>	Examination in Chemistry for admission.
<i>June 28, Wednesday.</i>	Commencement.

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 27, INCLUSIVE

<i>Sept. 21, Thursday.</i>	Examinations begin for applicants for advanced standing, and for men previously conditioned.
<i>Sept. 27, Wednesday.</i>	Examination in Chemistry for admission.
<i>Sept. 28, Thursday.</i>	Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
<i>Oct. 12, Thursday.</i>	Columbus Day: a holiday.
<i>Nov. 1, Wednesday.</i>	Last day for receiving essays for the William H. Thorndike Prize.
<i>Nov. 30, Thursday.</i>	Thanksgiving Day: a holiday.
<i>Nov. 30, Thursday.</i>	Last day for receiving applications for the Cheever and Hayden Scholarships.

OFFICE HOURS OF THE DEAN, FRIDAYS, 4 TO 5 P.M.; OF THE SECRETARY, TUESDAYS AND THURSDAYS, 12 M. TO 1 P.M.; OF THE DIRECTOR OF THE SUMMER SCHOOL, DAILY, EXCEPT SATURDAYS, 9 TO 10 A.M., JUNE 1 TO SEPTEMBER 30; OF THE DIRECTOR OF SCHOLARSHIPS, MONDAYS, 2.45 TO 3.15 P.M., ROOM 386, BUILDING D, 1.

THE MEDICAL SCHOOL

FACULTY OF MEDICINE *

ADDRESS.†

ABBOTT LAWRENCE LOWELL, LL.B., LL.D., Ph.D (hon), PRESIDENT,	17 Quincy St., Cambridge.
HENRY A. CHRISTIAN, M.D., DEAN, and <i>Hersey</i> <i>Professor of the Theory and Practice of Physic,</i>	252 Marlborough St.
CLARENCE J. BLAKE, M.D., <i>Walter Augustus Le-</i> <i>compte Professor of Otology,</i>	226 Marlborough St.
THOMAS DWIGHT, M.D., LL.D., <i>Parkman Professor</i> <i>of Anatomy,</i>	Harvard Medical School.
JOHN H. McCOLLOM, M.D., S.M., <i>Professor of Con-</i> <i>tagious Diseases,</i>	Boston City Hospital.
ABNER POST, M.D., <i>Assistant Professor of Syphilis,</i>	16 Newbury St.
JAMES J. PUTNAM, M.D., <i>Professor of Diseases of</i> <i>the Nervous System,</i>	106 Marlborough St.
FREDERICK C. SHATTUCK, M.D., LL.D., <i>Jackson</i> <i>Professor of Clinical Medicine,</i>	135 Marlborough St.
EDWARD H. BRADFORD, M.D., <i>Professor of Ortho-</i> <i>pedic Surgery,</i>	133 Newbury St.
CHARLES A. BRACKETT, D.M.D., <i>Professor of</i> <i>Dental Pathology,</i>	Newport, R.I.
THOMAS MORGAN ROTCH, M.D., <i>Professor of</i> <i>Pediatrics,</i>	197 Commonwealth Ave.
EUGENE H. SMITH, D.M.D., <i>Professor of Clinical</i> <i>Dentistry and Orthodontia, and Dean of the Dental</i> <i>School,</i>	283 Dartmouth St.
WILLIAM F. WHITNEY, M.D., <i>John Barnard Swett</i> <i>Jackson Curator of the Warren Anatomical Museum,</i>	Harvard Medical School.
CHARLES S. MINOT, S.D., LL.D., <i>James Stillman</i> <i>Professor of Comparative Anatomy,</i>	Harvard Medical School.
MAURICE H. RICHARDSON, M.D., <i>Moseley Professor</i> <i>of Surgery,</i>	224 Beacon St.

* Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- CHARLES M. GREEN, M.D., *Professor of Obstetrics*,
78 Marlborough St.
- EDWARD C. BRIGGS, M.D., D.M.D., *Professor of*
Dental Materia Medica and Therapeutics, 129 Marlborough St.
- WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck*
Professor of Pathological Anatomy, 78 Bay State Road.
- GEORGE HOWARD MONKS, M.D., M.R.C.S., *Pro-*
fessor of Oral Surgery, 67 Marlborough St.
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Harvard Medical School.
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Dentistry, 330 Dartmouth St.
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in Diseases of the Nervous System, 535 Beacon St.
- WILLIAM H. POTTER, D.M.D., *Professor of Operative*
Dentistry, 16 Arlington St.
- HERMAN F. VICKERY, M.D., *Instructor in Clinical*
Medicine, 263 Beacon St.
- JOHN T. BOWEN, M.D., *Edward Wigglesworth Pro-*
fessor of Dermatology, 14 Marlborough St.
- HENRY JACKSON, M.D., *Instructor in Clinical Medi-*
cine, 380 Marlborough St.
- GEORGE G. SEARS, M.D., *Assistant Professor of*
Clinical Medicine, 426 Beacon St.
- ALGERNON COOLIDGE, JR., M.D., *Assistant Pro-*
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- ROBERT W. LOVETT, M.D., *Assistant Professor of*
Orthopedic Surgery, 234 Marlborough St.
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yan Professor of Comparative Pathology, Harvard Medical School.
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Pathology, Harvard Medical School.

- EDWARD H. NICHOLS, M.D., *Assistant Professor of Surgical Pathology*, and *Assistant Professor of Surgery*, 294 Marlborough St.
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- RICHARD C. CABOT, M.D., *Assistant Professor of Clinical Medicine*, 190 Marlborough St.
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- JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology*, Mass. General Hospital.
- HARVEY CUSHING, M.D. *Professor of Surgery* (on leave of absence), 107 E. Chase St., Baltimore, Md.
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- JOHN L. BREMER, M.D., *Demonstrator of Histology*, Harvard Medical School.
- WALTER B. CANNON, M.D., *George Higginson Professor of Physiology*, Harvard Medical School.
- JOHN WARREN, M.D., *Assistant Professor of Anatomy*, Harvard Medical School.
- WALTER R. BRINCKERHOFF, M.D., *Assistant Professor of Pathology*, Harvard Medical School.
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- ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology*, 37 Trowbridge St., Cambridge.
- ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology*, Harvard Medical School.
- LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry*, Harvard Medical School.
- S. BURT WOLBACH, M.D., *Assistant Professor of Bacteriology*, Harvard Medical School.
- CHANNING FROTHINGHAM, Jr., M.D., *Secretary of the Faculty of Medicine, and Assistant in the Theory and Practice of Physic*, 51 Hereford St.

FACULTY COUNCIL

- HENRY A. CHRISTIAN, M.D., DEAN, and *Hersey Professor of the Theory and Practice of Physic*.
- WILLIAM T. COUNCILMAN, M.D., *Shattuck Professor of Pathological Anatomy*.
- MYLES STANDISH, M.D., *Williams Professor of Ophthalmology*.
- GEORGE G. SEARS, M.D., *Assistant Professor of Clinical Medicine*.
- JOHN B. BLAKE, M.D., *Assistant Professor of Surgery*.
- WALTER B. CANNON, M.D., *George Higginson Professor of Physiology*.
- JOHN WARREN, M.D. (*Secretary*), *Assistant Professor of Anatomy*.

STANDING COMMITTEES FOR THE MEDICAL SCHOOL

Admission. — Dr. Christian (*Chairman*), and Drs. Folin and Lewis.

Buildings. — Dr. J. Warren (*Chairman*), and Drs. Bremer and C. Frothingham, Jr.

Library. — Dr. Joslin (*Chairman*), and Drs. W. T. Porter, L. W. Williams, and Southard.

Students' Health. — Dr. Ernst (*Chairman*), and Drs. Putnam, E. H. Smith, Dexter, J. B. Blake, and Badger.

Summer School of Medicine. — Dr. Robert M. Green (*Chairman and Director*), and Drs. Morse, Greenough, Newell, and Southard.

OFFICE HOURS OF THE DEAN, FRIDAYS, 4 TO 5 P.M.; OF THE SECRETARY, TUESDAYS AND THURSDAYS, 12 M. TO 1 P.M.; OF THE DIRECTOR OF THE SUMMER SCHOOL, DAILY, EXCEPT SATURDAYS, 9 TO 10 A.M., JUNE 1 TO SEPTEMBER 30; OF THE DIRECTOR OF SCHOLARSHIPS, MONDAYS, 2.45 TO 3.15 P.M., ROOM 386, BUILDING D, 1.

THE HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of BACHELOR OF MEDICINE; beginning with 1811, the degree has been DOCTOR OF MEDICINE. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first MEDICAL COLLEGE was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth-year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 68.

The degree of Doctor of Medicine *cum laude* is given to candidates who obtain an average of 80 per cent. or over in all the required examinations.

Beginning with 1906, special students, not candidates for the degree of Doctor of Medicine, have been admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 84.

Pamphlets descriptive of the many courses of study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Secretary of the Harvard Medical School, Longwood Avenue, Boston, Mass.

THE MEDICAL SCHOOL BUILDINGS AND HOSPITAL FACILITIES

In September, 1906, the Medical School moved into its new buildings, which occupy eleven acres on Longwood Avenue, Boston. The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, biological chemistry, and theory and practice of physic; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) preventive medicine and hygiene, pharmacology, comparative pathology, and surgery.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms

were originally designed. These buildings provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

At the present time the clinical instruction is carried on in the wards and out-patient departments of the Massachusetts General Hospital, Boston City Hospital, Boston Lying-in Hospital, Boston Dispensary, Infants' Hospital, Children's Hospital, McLean Hospital, Boston State Hospital, Massachusetts Charitable Eye and Ear Infirmary, Long Island Hospital, Carney Hospital, and Free Hospital for Women. For a detailed statement of the number of patients treated in these hospitals see pages 72-75.

In the Medical School buildings there is an out-patient clinic which is open all the year. Although only recently started this clinic is already large enough for teaching purposes in medicine, surgery, and several of the specialties.

The Medical School buildings shortly will be surrounded by several new hospitals. Already the plans are practically completed and construction will soon commence on the Peter Bent Brigham Hospital, the Children's Hospital, the Thomas Morgan Rotch, Junior, Memorial Infants' Hospital, and the Cancer Hospital.

ADMINISTRATIVE BOARD

HENRY A. CHRISTIAN, M.D., DEAN, and *Hersey Professor of the Theory and Practice of Physic.*

CHARLES M. GREEN, M.D., *Professor of Obstetrics.*

FRANCIS B. HARRINGTON, M.D., *Lecturer on Surgery.*

GEORGE G. SEARS, M.D., *Assistant Professor of Clinical Medicine.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

JOHN L. MORSE, M.D., *Assistant Professor of Pediatrics.*

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

JOHN WARREN, M.D., *Assistant Professor of Anatomy.*

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

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Advertising and Catalogue. — Dr. Cannon (*Chairman*), and Drs. Mallory, Morse, Southard, and C. Frothingham, Jr. (*ex-officio*).

Fellowships. — Dr. Mallory (*Chairman*), and Drs. Green, Harrington, Sears, and Warren.

Scholarships and Students' Aid. — Dr. Christian (*Chairman*), and Drs. Dexter (*Director of Scholarships*) and Cannon.

INSTRUCTORS, LECTURERS, AND ASSISTANTS *

EDWARD COWLES, M.D., LL.D., <i>Instructor in Men- tal Diseases,</i>	ADDRESS † 419 Boylston St.
GEORGE T. TUTTLE, M.D., <i>Clinical Instructor in Mental Diseases,</i>	Waverley.
SAMUEL J. MIXTER, M.D., <i>Lecturer on Surgery,</i>	180 Marlborough St.
GEORGE H. MONKS, M.D., M.R.C.S., <i>Lecturer on Surgery,</i>	67 Marlborough St.
FRANCIS B. HARRINGTON, M.D., <i>Lecturer on Surgery,</i>	201 Beacon St.
WILLIAM F. KNOWLES, M.D., <i>Assistant in Otology,</i>	220 Clarendon St.
WILLIAM NOYES, M.D., <i>Clinical Instructor in Mental Diseases,</i>	11 St. John St., Jamaica Plain.
J. PAYSON CLARK, M.D., <i>Instructor in Laryngology,</i>	71 Marlborough St.
CHARLES L. SCUDDER, M.D., <i>Lecturer on Surgery,</i>	209 Beacon St.
ELLIOTT G. BRACKETT, M.D., <i>Instructor in Ortho- pedics,</i>	166 Newbury St.
ARTHUR K. STONE, M.D., <i>Instructor in the Theory and Practice of Physic,</i>	44 Fairfield St.
FREDERIC C. COBB, M.D., <i>Instructor in Laryngology,</i>	11 Marlborough St.
AUGUSTUS THORNDIKE, M.D., <i>Instructor in Ortho- pedics,</i>	601 Beacon St.
MALCOLM STORER, M.D., <i>Instructor in Gynaecology,</i>	476 Boylston St.
LANGDON FROTHINGHAM, M.D.V., <i>Instructor in Bacteriology,</i>	Harvard Medical School.

* Arranged on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- WILLIAM E. FAULKNER, M.D., *Instructor in Surgery*,
290 Marlborough St.
- ELISHA FLAGG, M.D., *Assistant in Anatomy*,
190 Commonwealth Ave.
- JAMES M. JACKSON, M.D., *Instructor in Clinical
Medicine*, 230 Beacon St.
- ALEXANDER QUACKENBOSS, M.D., *Instructor in
Ophthalmology*, 143 Newbury St.
- EUGENE A. CROCKETT, M.D., *Instructor in Otology*,
298 Marlborough St.
- FRED B. LUND, M.D., *Lecturer on Surgery*, 529 Beacon St.
- HARVEY P. TOWLE, M.D., *Assistant in Dermatology*,
453 Marlborough St.
- ALFRED M. AMADON, M.D., *Assistant in Otology*,
543 Boylston St.
- JOSEPH L. GOODALE, M.D., *Instructor in Laryn-
gology*, 258 Beacon St.
- JAMES S. STONE, M.D., *Assistant in Surgery*, 234 Marlborough St.
- ROCKWELL A. COFFIN, M.D., *Instructor in Laryn-
gology*, 234 Clarendon St.
- PHILIP HAMMOND, M.D., *Instructor in Otology*, 416 Marlborough St.
- HENRY H. HASKELL, M.D., *Instructor in Ophthal-
mology*, 34 Commonwealth Ave.
- HENRY F. HEWES, M.D., *Instructor in the Theory
and Practice of Physic*, 125 Marlborough St.
- CALVIN G. PAGE, M.D., *Assistant in Bacteriology*,
128 Marlborough St.
- C. MORTON SMITH, M.D., *Assistant in Syphilis*,
437 Marlborough St.
- CHARLES J. WHITE, M.D., *Instructor in Derma-
tology*, 259 Marlborough St.
- FRANKLIN W. WHITE, M.D., *Instructor in Clinical
Medicine*, 416 Marlborough St.
- ERNEST A. CODMAN, M.D., *Assistant in Surgery*, 227 Beacon St.
- WILLIAM P. GRAVES, M.D., *Assistant in Gynae-
cology*, 244 Marlborough St.
- WILLIAM H. ROBEY, JR., M.D., *Instructor in Clinical
Medicine*, 202 Commonwealth Ave.
- GEORGE S. C. BADGER, M.D., *Instructor in the Theory
and Practice of Physic*, 48 Hereford St.
- HARRY A. BARNES, M.D., *Assistant in Laryngology*, 213 Beacon St.
- EDMUND W. CLAP, M.D., *Assistant in Ophthal-
mology*, 390 Commonwealth Ave.
- JOSHUA C. HUBBARD, M.D., *Assistant in Surgery*,
84 Bay State Road.

- DANIEL F. JONES, M.D., *Assistant in Surgery*, 195 Beacon St.
 HARRIS P. MOSHER, M.D., *Instructor in Laryngology and Anatomy, and Assistant in Otology*, 828 Beacon St.
 HENRY J. PERRY, M.D., *Assistant in Bacteriology*, 636 Beacon St.
 ARTHUR M. WORTHINGTON, M.D., *Assistant in Bacteriology*, 26 Court St., Dedham.
 ERNEST B. YOUNG, M.D., *Instructor in Gynaecology*, 434 Marlborough St.
 SAMUEL W. ELLSWORTH, M.D., *Assistant in the Use of the Roentgen Ray*, 18 Russell P'k, Quincy.
 FRED M. SPALDING, M.D., *Assistant in Ophthalmology*, 390 Commonwealth Ave.
 HOWARD T. SWAIN, M.D., *Instructor in Obstetrics*, 68 Marlborough St.
 FREDERICK S. BURNS, M.D., *Assistant in Dermatology*, 224 Marlborough St.
 LE ROI G. CRANDON, M.D., *Assistant in Surgery*, 366 Commonwealth Ave.
 EUGENE E. EVERETT, M.D., *Assistant in Bacteriology*, 427 Marlborough St.
 WALTER C. HOWE, M.D., *Assistant in Surgery*, 303 Beacon St.
 MAYNARD LADD, M.D., *Instructor in Pediatrics*, 270 Clarendon St.
 GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine*, 274 Boylston St.
 JOSEPH H. PRATT, M.D., *Instructor in the Theory and Practice of Physic*, 313 Beacon St.
 ROBERT SOUTTER, M.D., *Assistant in Orthopedics*, 133 Newbury St.
 DAVID H. WALKER, M.D., *Assistant in Otology*, 390 Commonwealth Ave.
 LEO V. FRIEDMAN, M.D., *Assistant in Obstetrics and Gynaecology*, 425 Marlborough St.
 ROBERT B. OSGOOD, M.D., *Assistant in Orthopedics*, 372 Marlborough St.
 CHANNING C. SIMMONS, M.D., *Assistant in Surgery*, 317 Marlborough St.
 JAMES R. TORBERT, M.D., *Assistant in Obstetrics*, 252 Marlborough St.
 FREDERICK H. VERHOEFF, M.D., *Instructor in Ophthalmic Pathology*, 95 Mountfort St.
 GEORGE A. WATERMAN, M.D., *Assistant in Neurology*, 395 Marlborough St.
 PERCY BROWN, M.D., *Assistant in the Use of the Roentgen Ray*, 155 Newbury St.

- CHARLES H. DUNN, M.D., *Clinical Instructor in Pediatrics*, 220 Marlborough St.
- EDWIN A. LOCKE, M.D., *Instructor in Clinical Medicine*, 311 Beacon St.
- LUTHER D. SHEPARD, JR., M.D., D.M.D., *Instructor in Dental Histology and Dental Anatomy*, 330 Dartmouth St.
- EDWARD N. TOBEY, M.D., *Assistant in Bacteriology*, Harvard Medical School.
- HERMAN M. ADLER, M.D., *Assistant in Pathology, and in Neuropathology*, Hathorne.
- FREDERICK T. LORD, M.D., *Instructor in Clinical Medicine*, 305 Beacon St.
- ERNEST G. MARTIN, PH.D., *Instructor in Physiology*, Harvard Medical School.
- NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology*, 483 Beacon St.
- FRED T. MURPHY, M.D., *Assistant in Surgery*, 309 Marlborough St.
- HENRY I. BOWDITCH, M.D., *Assistant in Pediatrics*, 416 Marlborough St.
- ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics*, 357 Marlborough St.
- HARRY W. GOODALL, M.D., *Assistant in Biological Chemistry*, 213 Beacon St.
- THOMAS F. LEEN, M.D., *Assistant in the Theory and Practice of Physic*, 527 Beacon St.
- FRANCIS W. PALFREY, M.D., *Alumni Assistant in the Theory and Practice of Physic*, 88 Beacon St.
- ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy*, 86 Bay State R'd.
- JOHN HOMANS, M.D., *Assistant in Surgery*, 164 Beacon St.
- WILLIAM B. ROBBINS, M.D., *Assistant in the Theory and Practice of Physic*, 356 Marlborough St.
- MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology*, Warren St., Brookline.
- CALVIN B. FAUNCE, JR., M.D., *Fellow in Pathology*, Harvard Medical School.
- JOHN B. HARTWELL, M.D., *Assistant in Anatomy*, 29 Commonwealth Ave.
- ARTHUR I. KENDALL, PH.D., *Instructor in Preventive Medicine and Hygiene*, Harvard Medical School.
- WILLIAM P. LUCAS, M.D., *Assistant in Pediatrics*, 261 Beacon St.
- LOUIS NELSON, M.D., *Instructor in Pharmacology*, 124 Newbury St.
- EDWIN H. PLACE, M.D., *Assistant in Pediatrics*, Boston City Hospital.

- FRITZ B. TALBOT, M.D., *Fellow in Pediatrics*, 171 Bay State Road.
 GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology*, 149 Newbury St.
 GERALD BLAKE, M.D., *Alumni Assistant in Clinical Medicine*, 212 Beacon St.
 SAMUEL T. ORTON, M.D., *Assistant in Neuropathology*, State Hospital, Worcester.
 CHARLES L. OVERLANDER, M.D., *Assistant in the Theory and Practice of Physic*, 1112 Boylston St.
 ERNEST T. F. RICHARDS, M.D., C.M., *Instructor in Pathology and Assistant in Neuropathology*, State Infirmary, Tewksbury.
 FREDERICK M. ALLEN, M.D., *Charles Follen Folsom Teaching Fellow in Hygiene*, 22 Peterborough St.
 WALTER M. BOOTHBY, M.D., *Assistant in Anatomy*, 508 Commonwealth Ave.
 ALBERT EHRENFRIED, M.D., *Assistant in Anatomy*, 1112 Boylston St.
 ROBERT M. GREEN, M.D., *Assistant in Anatomy*, and *Director of the Summer School of Medicine*, 78 Marlborough St.
 ROGER I. LEE, M.D., *Assistant in the Theory and Practice of Physic*, 99 Commonwealth Ave.
 EDWIN HENRY SCHORER, M.D., *Fellow in Preventive Medicine and Hygiene*, 143 Hemenway St.
 PHILIP H. SYLVESTER, M.D., *Assistant in Pediatrics*, Newton Centre.
 ARIAL W. GEORGE, M.D., *Assistant in the Use of the Roentgen Ray*, 259 Beacon St.
 JAMES B. AYER, M.D., *Fellow in Physiology*, 518 Beacon St.
 TORR W. HARMER, M.D., *Alumni Assistant in Surgery*, 192 Marlborough St.
 RICHARD M. SMITH, M.D., *Assistant in the Theory and Practice of Physic*, 222 Marlborough St.
 J. HERBERT YOUNG, M.D., *Alumni Assistant in Clinical Medicine*, 430 Centre St., Newton.
 WALTER J. DODD, M.D., *Instructor in the Use of the Roentgen Ray*, Mass. General Hospital.
 JOHN B. SWIFT, JR., M.D., *Fellow in Surgery*, 465 Beacon St.
 ALEXANDER FORBES, M.D., *Instructor in Physiology*, Harvard Medical School.
 WILLIAM S. WHITTEMORE, M.D., *Assistant in Anatomy*, Harvard Medical School.
 HAROLD L. AMOSS, S.M., *Assistant in Preventive Medicine and Hygiene*, Harvard Medical School.

- HANS BARKAN, M.D., *Assistant in Pathology*,
Harvard Medical School.
- GEORGE G. SMITH, M.D., *Assistant in Anatomy*, 259 Beacon St.
- CHESTER J. FARMER, *Assistant in Biological Chemistry*,
Harvard Medical School.
- CHAUNCEY J. V. PETTIBONE, S.B., *Research Assistant in Biological Chemistry*,
Harvard Medical School.
- DAVID L. WILLIAMS, M.D., *Assistant in Materia Medica*,
29 Gloucester St.
- CHARLES H. DANFORTH, A.B., *Teaching Fellow in Histology and Embryology*,
Harvard Medical School.
- FRANKLIN P. JOHNSON, A.M., *Instructor in Histology and Embryology*,
6 Park Drive, Brookline.
- FRANCIS B. KINGSBURY, A.B., *Teaching Fellow in Biological Chemistry*,
Harvard Medical School.

AUSTIN TEACHING FELLOWS

- CLEAVELAND FLOYD, M.D., *in Bacteriology*, 246 Marlborough St.
- EUGENE L. PORTER, A.M., *in Physiology*, Harvard Medical School.
- HALSEY B. LODER, M.D., *Austin Teaching Fellow in Surgery*,
Harvard Medical School.
- CHARLES T. RYDER, M.D., *in Comparative Pathology*,
85 Pinckney St.
- ARCHIBALD B. MACALLUM, M.D., *in Biological Chemistry*,
Harvard Medical School.
- CHESTER H. HEUSER, A.M., *in Histology and Embryology*,
6 Park Drive, Brookline.

THE HARVARD MEDICAL SCHOOL

ADMISSION OF STUDENTS

I. Students who have acquired from a recognized college or scientific school a degree in arts or science, following the completion of a course of at least three collegiate years, are admitted as regular students and candidates for the degree of M.D. provided they present certificates showing that they have done satisfactory work in chemistry equivalent to two college courses, with laboratory work in each amounting at least to four hours per week. These courses in chemistry should include general chemistry, organic chemistry, and qualitative analysis; some practice in making careful quantitative determinations is desirable. In case the student cannot present such certificates in chemistry he will be required to pass examinations in these subjects. Students who are not quite able to fulfil all of the requirements in chemistry may enter conditioned in chemistry; but they must make up the condition before the beginning of the second term of the first year.*

II. Candidates who present certificates showing that they have completed two years of undergraduate work at a recognized college or scientific school will be admitted as special students, provided they are able to read French or German and have taken the following college courses, with at least four hours of laboratory work per week in each. (The minimum proportion of a college year to be devoted to each is indicated.)

* Although students are admitted to the Medical School under the conditions indicated under I, it is recommended to those who propose to study medicine that they include if possible among their studies in college certain courses which serve as a direct preparation for or are aids in the study of medicine. Such studies are:—

Chemistry as outlined under I, and without which students are not admitted to the Medical School.

Physics. A college course in experimental physics extending through the college year and including at least four hours of laboratory work per week. The laboratory work should consist largely of accurate physical measurements.

Biology. Two college courses with laboratory work in each amounting to at least four hours per week. This work should include general biology, the dissection of vertebrates, and practice in the use of the microscope and in microscopic technique.

French and German. Any courses requiring considerable practice in reading.

The courses offered by the Harvard Faculty of Arts and Sciences which fit these recommendations are as follows: Physics *C*; Chemistry 1, 2, and 3; Zoölogy 1, 2, 3, and 4; Botany 2; together with several courses in French and German.

Physics ($\frac{1}{4}$ year or 250 hours).

General Chemistry ($\frac{1}{4}$ year or 250 hours).

Qualitative Analysis ($\frac{1}{8}$ year or 125 hours).

Organic Chemistry ($\frac{1}{8}$ year or 125 hours).

Zoölogy (which must include dissection of vertebrates and work with the microscope) ($\frac{1}{4}$ year or 250 hours).

Special students who attain an average grade within five points of the honor mark in their years of residence at the Harvard Medical School will be accepted as candidates for the degree of M.D.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other recognized medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations and fulfil all requirements of laboratory and practical work in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission enumerated under I. Other students who fulfil the requirements for admission enumerated under II may be admitted to advanced standing as special students provided they furnish satisfactory certificate of time spent in medical studies, pass examinations and fulfil all requirements of laboratory and practical work in branches already pursued by the class to which they seek admission. Special students admitted to advanced standing may be accepted as candidates for the degree of M.D. provided they attain an average grade within five points of the honor mark in the years of their residence at the Harvard Medical School.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations and by fulfilling all requirements of laboratory and practical work required in the full undergraduate course, and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examination), and June.

Applicants for advanced standing and graduates of another medical school who have fulfilled in another recognized medical school the requirements of laboratory or practical work of a department of this School may be excused from repeating such requirements, provided the instruction which they have received is considered satisfactory by the Committee on Admission in conference with the head of the department concerned.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Thursday, the first day of the academic year.

*Students are required to devote themselves exclusively to the work of the School.**

Any student may obtain a certificate of his period of connection with the School.

* The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

DIVISION OF STUDIES

DIVISION OF STUDIES

23

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR ELECTIVES
*Anatomy 3	*Bacteriology 1	*Materia Medica and Therapeutics 2	Anatomy 1 and 2
*Histology and Embryology 3	*Pathology 3	*Theory and Practice 3	Comp. Anatomy 1, 2, 3, 4 and 5
Physiology 3	Preventive Medicine and Hygiene 1	Clinical Medicine 3	Physiology 1 and 2
Biochemistry 3	<i>Materia Medica and Therapeutics</i>	Pediatrics 2	Comparative Physiology 1 and 2
	<i>Theory and Practice</i>	*Surgery (written 2 hrs., practical 1 hr.) 3	
	<i>Clinical Medicine</i>	Clinical Surgery (written 1 hr., practical 1 hr.) 2	
	<i>Surgery</i>	Obstetrics 3	
		Gynaecology 1	
		Dermatology 1	
		Syphilis 1	
		Neurology 1	
		Psychiatry 1	
		*Ophthalmology 1	
		Otology 1	
		Laryngology 1	
		<i>Genito-Urinary Surgery</i>	
		<i>Legal Medicine</i>	
			Legal Medicine
			Therapeutics
			Theory and Practice 1, 2, 3, 4 and 5
			Clinical Medicine 1
			Tropical Medicine
			Neurology and Psychiatry 1
			Dermatology and Syphilis 1 and 2
			Gynaecology 2
			Obstetrics 1
			Clinical Surgical Pathology
			Surgical Pathology
			Orthopedics 1 and 2
			Genito-Urinary Surgery
			Pediatrics 1
			Surgery 1
			Roentgen Ray 1 and 2

NOTE. — Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates the length in hours of the examination. In the fourth year, electives must be chosen aggregating 1000 hours; each elective or half-course has a value of 125 hours.

* Examination in February.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
Ch.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
I.H.	= Infants' Hospital.
L.I.H.	= Long Island Hospital.
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.H.	= Samaritan Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

THOMAS DWIGHT, M.D., LL.D., *Parkman Professor of Anatomy.*

JOHN WARREN, M.D., *Assistant Professor of Anatomy.*

DAVID CHEEVER, M.D., *Demonstrator of Anatomy.*

HARRIS P. MOSHER, M.D., *Instructor in Anatomy.*

LUTHER D. SHEPARD, Jr., M.D., D.M.D., *Instructor in Dental Histology and Dental Anatomy.*

ELISHA FLAGG, M.D., *Assistant in Anatomy.*

JOHN B. HARTWELL, M.D., *Assistant in Anatomy.*

ROBERT M. GREEN, M.D., *Assistant in Anatomy.*

WALTER M. BOOTHBY, M.D., *Assistant in Anatomy.*

ALBERT EHRENFRIED, M.D., *Assistant in Anatomy.*

WILLIAM S. WHITTEMORE, M.D., *Assistant in Anatomy.*

GEORGE G. SMITH, M.D., *Assistant in Anatomy.*

ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy.*

First Year. — The course in anatomy occupies the mornings in October, November, and December, and both mornings and afternoons in January. The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 53.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Piersol. Cunningham. Gray. Quain. Morris. Gerrish.

Collateral Reading. — Dwight, Clinical Atlas of Variations of Hands and Feet. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Sobotta McMurrich, Atlas and Text-book of Human Anatomy. Testut, Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Corning, Lehrbuch der Topographischen Anatomie. Tillaux, Anatomie topographique.

FIRST YEAR

October

	HOURS
Lectures. Professor DWIGHT. <i>Seven hours weekly.</i>	28
Study of bones and joints. <i>Three hours daily for first two weeks.</i>	33
Demonstrations. Dr. CHEEVER. <i>Four times a week to sections of the class for last two weeks.</i>	12
Practical anatomy with recitations. <i>Three hours a day, five times a week for last two weeks.</i>	30

November and December

Lectures. Professor DWIGHT. <i>Three hours a week.</i>	24
Demonstrations. Assistant Professor WARREN and Dr. CHEEVER. <i>Four times a week to sections of the class.</i>	24
Practical anatomy with recitations. <i>Three hours a day, five times a week.</i>	60

January

Lectures and demonstrations. Assistant Professor WARREN. <i>Daily.</i>	24
Demonstrations. Dr. CHEEVER. <i>Four times a week to sections of the class.</i>	24
Practical anatomy with recitations. <i>Three to six hours a day, five times a week.</i>	80
Demonstrations and study of the brain and organs of sense. <i>Three hours a day, five times a week for two and a half weeks.</i>	40

Comparative Anatomy

CHARLES S. MINOT, S.D., LL.D., *James Stillman Professor of Comparative Anatomy.*

FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology.*

JOHN L. BREMER, M.D., *Demonstrator of Histology.*

LEONARD W. WILLIAMS, Ph.D., *Instructor in Comparative Anatomy.*

LUTHER D. SHEPARD, JR., M.D., D.M.D., *Instructor in Dental Histology and Dental Anatomy.*

FRANKLIN P. JOHNSON, A.M., *Instructor in Histology and Embryology.*

CHARLES H. DANFORTH, A.M., *Teaching Fellow in Histology and Embryology.*

CHESTER H. HEUSER, A.M., *Austin Teaching Fellow in Histology and Embryology.*

LABORATORY

In this department instruction in Comparative Anatomy, Histology, and Emryology is given.

The laboratory occupies the southeast wing of the new Morgan Anatomical Building. There are separate rooms for fourth-year and graduate students and for various kinds of special technical work. There are unit rooms for class work, each of which measures twenty-three by thirty feet, well lighted, and thoroughly equipped. Each unit room is designed for twenty-four elementary or twelve advanced students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about eight thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in human histology and embryology, and in comparative anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises over fifteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes fifty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet known.

REGULAR COURSES

First Year. — This course is intended to teach the normal histology of the human body. It deals with the cells, tissues, and organs from the developmental standpoint. After a brief consideration of the cell, the fertilization and segmentation of the ovum are taken up as an introduction

to the study of the chick embryo of 36 hours and the pig embryo of 20 days. In this work special stress is laid on the origin and growth of the different organs. During the remainder of the course the various tissues and organs are studied in succession, special attention being given to organogeny. With the work on the uterus, the human placenta and fetal membranes are given special emphasis.

Microscope and Laboratory Fees. — Every student is advised to purchase a microscope, but microscopes may be rented for four dollars a term, or five dollars for the whole first-year work. Each regular medical student is charged a laboratory fee of three dollars.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 54.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Stöhr's Histology, 6th edition, edited by F. T. Lewis. Minot, Laboratory Text-book of Embryology.

Collateral Reading. — Kölliker, Gewebelehre. Minot, Human Embryology. Hertwig, Handbuch der Entwicklungslehre der Wirbeltiere.

FIRST YEAR

October, November, December

HOURS

Lectures. Professor MINOT, Asst. Professor LEWIS, and Dr. BREMER.

One half-hour five times a week.

30

Laboratory work. *Three and one-half hours five times a week.*

210

Quiz. *Two hours once a week.*

24

INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

ERNEST G. MARTIN, Ph.D., *Instructor in Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

JAMES B. AYER, M.D., *Fellow in Physiology.*

EUGENE L. PORTER, A.M., *Austin Teaching Fellow in Physiology.*

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised from day to day.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology or Biological Chemistry, based upon reading of the records of original investigations, is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Theses in Physiology, which are closely related to the regular instruction, are presented before the class; in each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is divided into sections and quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization. The examination books are returned, corrected, to the students.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Fourth Year. — For a description of the fourth-year courses offered in this department, see p. 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Nagel, Handbuch der Physiologie.

FIRST YEAR (Second half)	HOURS
Laboratory experiments. Professor CANNON, Drs. MARTIN, FORBES, AYER, and Mr. PORTER. <i>Daily.</i>	160
Quizzes (14). <i>One hour Saturdays.</i>	14
Written tests (5). <i>One hour Mondays.</i>	5
Lectures (90). Professor CANNON, and Drs. MARTIN and FORBES.	90
Special demonstrations (30). Professor CANNON, and Drs. MARTIN and FORBES.	15
Discussion of Theses (30).	22
Thesis. Written by each student from the original sources.	
Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of Professor W. T. PORTER.

II. *Comparative Physiology of Muscle.* Professor PORTER. Three hours weekly during February and March.

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see p. 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*
LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry.*

HARRY W. GOODALL, M.D., *Assistant in Biological Chemistry.*

CHESTER J. FARMER, *Assistant in Biological Chemistry.*

CHAUNCEY J. V. PETTIBONE, S.B., *Research Assistant in Biological Chemistry.*

FRANCIS B. KINGSBURY, A.B., *Teaching Fellow in Biological Chemistry.*

ARCHIBALD B. MACALLUM, M.D., *Austin Teaching Fellow in Biological Chemistry.*

FIRST YEAR

Biochemistry I. — The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, by Dr. HENDERSON; and of the general principles and more important facts of physiological and pathological chemistry, by Professor FOLIN.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 55.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

FIRST YEAR (Second half)

HOURS

Lectures. Professor FOLIN and Asst. Professor HENDERSON. *One hour five times a week.* 80

Laboratory work. Professor FOLIN, Asst. Professor HENDERSON, Dr. MACALLUM, and Mr. FARMER. *Two and one-half hours five times a week.* 200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Assistant Professor of Bacteriology.*

LANGDON FROTHINGHAM, M.D.V., *Instructor in Bacteriology.*

CALVIN G. PAGE, M.D., *Assistant in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*

ARTHUR M. WORTHINGTON, M.D., *Assistant in Bacteriology.*

EUGENE E. EVERETT, M.D., *Assistant in Bacteriology.*

EDWARD N. TOBEY, M.D., *Assistant in Bacteriology.*

CLEAVELAND FLOYD, M.D., *Austin Teaching Fellow in Bacteriology.*

Second Year.—Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—Muir and Ritchie. Abbott. Park.

Collateral Reading.—Sternberg. Heim. Migula. Kolle and Wassermann.

SECOND YEAR

HOURS

Lectures. Professor ERNST. *Daily, except Saturdays, during October and November.* 40

Laboratory work. Professor ERNST, and Drs. FROTHINGHAM, PAGE, PERRY, WORTHINGTON, EVERETT, and TOBEY. *Two to three hours daily during October and November.* 120

Pathology.

WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology.*

WALTER R. BRINCKERHOFF, M.D., *Assistant Professor of Pathology.*

ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology.*

FREDERICK H. VERHOEFF, M.D., *Instructor in Ophthalmic Pathology.*

ERNEST T. F. RICHARDS, M.D., C.M., *Instructor in Pathology.*

HERMAN M. ADLER, M.D., *Assistant in Pathology.*

CALVIN B. FAUNCE, Jr., M.D., *Fellow in Pathology.*

HANS BARKAN, M.D., *Assistant in Pathology.*

Second Year. — The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. Lectures and laboratory talks are given daily.

In the forenoons of the second and third weeks of December, Professor T. SMITH gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

(a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)

(b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Ziegler, General and Special Pathology. Stengel, A Text-book of Pathology. Mallory and Wright, Pathological Technique.

Collateral Reading. — Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, The Animal Parasites of Man.

SECOND YEAR

HOURS

Lectures. Professors COUNCILMAN and MALLORY. *Daily for fourteen weeks, October, November, December (first week only), and January.*

84

Lectures. Professor T. SMITH. *One hour daily, second and third weeks of December.*

12

Laboratory work. Professor COUNCILMAN, Assistant Professor BRINCKERHOFF, and Drs. BARKAN and FAUNCE. *Three hours daily during the forenoons of October, November, December (first week only), and January.*

252

Demonstrations and laboratory work. Professor T. SMITH. *Two hours daily, second and third weeks of December.*

24

Neuropathology. Professor SOUTHARD. *Afternoons in December.*

45

Surgical Pathology. Assistant Professor NICHOLS. *Afternoons in January.*

60

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

THEOBALD SMITH, M.D., LL.D., S.D., *George Fabyan Professor of Comparative Pathology.*

— — —, *Assistant in Medical Zoölogy.*

MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology.*

CHARLES T. RYDER, M.D., *Austin Teaching Fellow in Comparative Pathology.*

Second Year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 57.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures. Professor T. SMITH. (H.M.S.) *One hour daily, second and third weeks of January.* 12

Demonstrations and laboratory work. Professor T. SMITH, Assistant Professor TYZZER, and Dr. FABYAN. *Two hours daily, second and third weeks in December.* 24

Neuropathology

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

HERMAN M. ADLER, M.D., *Assistant in Neuropathology.*

ERNEST T. F. RICHARDS, M.D., C.M., *Assistant in Neuropathology.*

SAMUEL T. ORTON, M.D., *Assistant in Neuropathology.*

Second Year. — The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the patho-

logical physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 57.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Collateral Reading. — Jakob, Atlas. Gowers, Diseases of the Nervous System. Diefendorf, Kraepelin's Psychiatry. Modern Clinical Medicine: The Nervous System. Quain, Neurology (new edition). Campbell, Localization of Cerebral Function. Recent volumes of *Brain*. In *German*: Kraepelin, Psychiatrie. Oppenheim, Neurologie. Bechterew, Funktionen der Nervencentra. Monakow, Gehirnpathologie. In *French*: Azoulay, Ramon y Cajal's Histologie. Van Gehuchten, Les centres nerveux: Anatomie et neuropathologie.

SECOND YEAR

HOURS

Lectures. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	
	12
Laboratory work. Professor SOUTHARD and assistants. <i>Two hours daily, afternoons in December.</i>	
	24
Written and practical tests. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	
	9
Demonstrations at State institutions, voluntary. Special.	

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene.*

ARTHUR I. KENDALL, Ph.D., *Instructor in Preventive Medicine and Hygiene.*

HAROLD L. AMOSS, S.M., *Assistant in Preventive Medicine and Hygiene.*

FREDERICK M. ALLEN, M.D., *Charles Follen Folsom Teaching Fellow in Hygiene.*

EDWIN H. SCHORER, M.D., *Fellow in Preventive Medicine and Hygiene.*

Second Year. — The instruction consists of lectures and demonstrations.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Rosenau, Disinfection and Disinfectants.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor ROSENAU and assistants. *Three times a week, second half-year.* 48

Materia Medica and Therapeutics

FRANZ PFAFF, M.D., *Professor of Pharmacology and Therapeutics.*

LOUIS NELSON, M.D., *Instructor in Pharmacology.*

DAVID L. WILLIAMS, M.D., *Assistant in Materia Medica.*

Second and Third Years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological action of drugs, and their practical value as remedies.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR

HOURS

Pharmacology lectures. Professor PFAFF. *Twice a week, February to May inclusive.* 32

Materia Medica lectures. Drs. NELSON and WILLIAMS. *Once a week, February to May inclusive.* 16

Voluntary laboratory work. Drs. NELSON and WILLIAMS. *Two hours once a week during April and May.*

THIRD YEAR

HOURS

Lectures on Therapeutics. Professor PFAFF. *Once a week, first half-year.* 16

The Theory and Practice of Physic

HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

ELLIOTT P. JOSLIN, M.D., *Instructor in the Theory and Practice of Physic.*

ARTHUR K. STONE, M.D., *Instructor in the Theory and Practice of Physic.*

HENRY F. HEWES, M.D., *Instructor in the Theory and Practice of Physic.*

GEORGE S. C. BADGER, M.D., *Instructor in the Theory and Practice of Physic.*

JOSEPH H. PRATT, M.D., *Instructor in the Theory and Practice of Physic.*

THOMAS F. LEEN, M.D., *Assistant in the Theory and Practice of Physic.*

FRANCIS W. PALFREY, M.D., *Alumni Assistant in the Theory and Practice of Physic.*

WILLIAM B. ROBBINS, M.D., *Assistant in the Theory and Practice of Physic.*

CHARLES L. OVERLANDER, M.D., *Assistant in the Theory and Practice of Physic.*

CHANNING FROTHINGHAM, Jr., M.D., *Assistant in the Theory and Practice of Physic.*

ROGER I. LEE, M.D., *Assistant in the Theory and Practice of Physic.*

RICHARD M. SMITH, M.D., *Assistant in the Theory and Practice of Physic.*

The instruction given by the Department of the Theory and Practice of Physic consists of both clinical and laboratory work. The clinical work is given by means of lectures, clinical lectures and clinical exercises at the Massachusetts General Hospital, the Boston City Hospital, the Carney Hospital, or the House of the Good Samaritan. The laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research. Both kinds of work are offered to both undergraduate and graduate students.

Second and Third Years. — *Lectures.* Lectures on selected topics are given at the Medical School.

Clinical Lectures.—Clinical lectures in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Clinical Exercises.—Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 58.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—Osler, Practice of Medicine. Von Leube, Diagnose der Inneren Krankheiten. Emerson, Clinical Diagnosis. Sahli, Diagnostic Methods.

Collateral Reading.—Nothnagel, Specielle Pathologie und Therapie. Allbutt and Rolleston, System of Medicine. Kolle und Weintraud, Die Deutsche Klinik. Osler, Modern Medicine. Krehl, Principles of Clinical Pathology. Schwalbe, Therapeutische Technik. Gould, Medical Dictionary.

SECOND YEAR		HOURS
Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, second half-year.</i>	32
Clinical lectures. Dr. BADGER. (M.G.H.)	<i>Once a week, second half-year.</i>	16
Exercises in sections. Drs. JOSLIN (B.C.H.), BADGER and PALFREY (M.G.H.), STONE and LEE (M.G.H. and S.H.).	<i>Twice a week, second half-year, for each student.</i>	48
Laboratory exercises. Dr. HEWES, assisted by Drs. OVERLANDER, ROBBINS, and —.	<i>Five times a week, second half-year.</i>	160

THIRD YEAR

Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, first half-year.</i>	32
Clinical lectures. Dr. PRATT. (M.G.H.)	<i>Once a week, first half-year; once a week, second half-year.</i>	32

Clinical lectures.	DR. HEWES. (M.G.H.)	<i>Once a week, first half-year.</i>	16
Clinical lectures.	DRS. STONE, LORD, or LEE. (M.G.H.)	<i>Once a week, first half-year.</i>	16
Exercises in sections.	DRS. STONE and LEE. (M.G.H. and S.H.)	<i>First half-year. Twelve exercises for each student.</i>	18

Clinical Medicine

FREDERICK C. SHATTUCK, M.D., LL.D., *Jackson Professor of Clinical Medicine.*

GEORGE G. SEARS, M.D., *Assistant Professor of Clinical Medicine.*

RICHARD C. CABOT, M.D., *Assistant Professor of Clinical Medicine.*

HERMAN F. VICKERY, M.D., *Instructor in Clinical Medicine.*

HENRY JACKSON, M.D., *Instructor in Clinical Medicine.*

WILLIAM H. SMITH, M.D., *Instructor in Clinical Medicine.*

JAMES M. JACKSON, M.D., *Instructor in Clinical Medicine.*

FRANKLIN W. WHITE, M.D., *Instructor in Clinical Medicine.*

WILLIAM H. ROBEY, JR., M.D., *Instructor in Clinical Medicine.*

EDWIN A. LOCKE, M.D., *Instructor in Clinical Medicine.*

FREDERICK T. LORD, M.D., *Instructor in Clinical Medicine.*

J. HERBERT YOUNG, M.D., *Alumni Assistant in Clinical Medicine.*

GERALD BLAKE, M.D., *Alumni Assistant in Clinical Medicine.*

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second Year.—The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week. Credit is given for the character of the work done in this course on the basis of twenty-five per cent. of the total mark in Clinical Medicine.

Clinical instruction for the entire class, twice a week, in diagnostic methods, diagnosis, and treatment.

Third Year.—Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections, in the ward and out-patient departments. Each student attends thirty-two exercises during the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 60.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Sahli, Diagnostic Methods. Cabot, Physical Diagnosis. Forchheimer, Prophylaxis and Treatment of Internal Disease.

Collateral Reading. — Allbutt, System of Medicine. Osler's Modern Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Butler, Diagnostics of Internal Medicine. Le Febvre, Physical Diagnosis. Simon, Clinical Diagnosis. Emerson, Clinical Diagnosis.

SECOND YEAR

HOURS

Clinics. Professor SHATTUCK (M.G.H.) and Dr. H. JACKSON (B.C.H.).
Twice a week, second half-year. 32

Physical Diagnosis. Drs. J. M. JACKSON and LORD (M.G.H.) and Dr. ROBNEY (B.C.H.). *Two exercises a week, second half-year, for each student.* 48

THIRD YEAR

Clinics. Professor SHATTUCK. (M.G.H.) *Twice a week, first half-year; once a week, second half-year.* 48

Assistant Professor SEARS. (B.C.H.) *Twice a week, first half-year; once a week, second half-year.* 48

Dr. H. JACKSON. (B.C.H.) *Twice a week, second half-year.* 32

Section work. Assistant Professors SEARS and CABOT, Drs. VICKERY, H. JACKSON, and SMITH. *Thirty-two exercises for each student throughout the year.* 48

Tropical Medicine

THEOBALD SMITH, M.D., *George Fabyan Professor of Comparative Pathology*, will supervise the instruction in Tropical Medicine. Courses which are intimately related to this field of medicine will be found under Pathology, Bacteriology, and Clinical Medicine.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 61.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Pediatrics

THOMAS MORGAN ROTCH, M.D., *Professor of Pediatrics.*

JOHN H. MCCOLLOM, M.D., S.D., *Professor of Contagious Diseases.*

JOHN L. MORSE, M.D., *Assistant Professor of Pediatrics.*

MAYNARD LADD, M.D., *Instructor in Pediatrics.*

CHARLES H. DUNN, M.D., *Clinical Instructor in Pediatrics.*

HENRY I. BOWDITCH, M.D., *Assistant in Pediatrics.*

WILLIAM P. LUCAS, M.D., *Assistant in Pediatrics.*

EDWIN H. PLACE, M.D., *Assistant in Pediatrics.*

PHILIP H. SYLVESTER, M.D., *Assistant in Pediatrics.*

FRITZ B. TALBOT, M.D., *Fellow in Pediatrics.*

Third Year.—Lectures are given on such selected topics as the development and living anatomy of early life, diphtheria, the exanthemata and the dietetics of early life. Special instruction in the use and dispensing of food stuffs in a research milk laboratory and in gastro-enteric diseases preparatory for the clinical teaching are given early in the year. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital; and the students are required to take an active part in the examination and discussion of the cases. Recitations are given on subjects selected as being best studied in this way, and exercises in case-teaching are given in the latter part of the year preparatory for the examination. Sectional teaching at the bedside both at the Infants' and Children's Hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. The general subject of Pediatrics as connected with contagious diseases is especially explained and illustrated by the resident assistant in Pediatrics. From time to time in the wards of the Children's Hospital the students are given instruction in connection with blood cultures and with lumbar puncture. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 62.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book.—Rotch, Pediatrics.

Collateral Reading.—Pfaundler and Schlossmann, *The Diseases of Children*. Northrup, *American Edition of The Diseases of Children*, by Ashby and Wright. Jacobi, *Therapeutics of Infancy and Childhood*. Holt, *Diseases of Infancy and Childhood*. Sachs, *The Nervous Diseases of Children*.

THIRD YEAR		HOURS
Lectures. Professor ROTCH. (H.M.S.)	<i>Once a week, October 6 to December 1; January 5 to 26; January 31 to March 28.</i>	20
Assistant Professor MORSE. (H.M.S.)	<i>Once a week, February 6 to March 20.</i>	7
Dr. EDWIN H. PLACE. (H.M.S.)	<i>December 8 and 15.</i>	2
Clinical lectures. Professor ROTCH. (Ch.H.)	<i>Once a week, October 7 to January 20.</i>	14
Professor MCCOLLOM. (S.D.B.C.H.)	<i>October, November, December.</i>	8
Assistant Professor MORSE. (Infants' Hospital.)	<i>Once a week, January 27 to March 10.</i>	6
Recitations. Assistant Professor MORSE. (H.M.S.)	<i>Once a week, March 17 and 24; April 24 and 25; May 15 and 16.</i>	6
Dr. LADD. (H.M.S.)	<i>Twice a week, April 3 to 11.</i>	4
Case Teaching. Dr. DUNN. (H.M.S.)	<i>Twice a week, May 1 to 9.</i>	4
Assistant Professor MORSE. (H.M.S.)	<i>May 22 to 30.</i>	3
Section Teaching. Dr. PLACE. (S.D.B.C.H.)	<i>In sections, first half-year. Six exercises for each student.</i>	9
DRS. LADD, DUNN, BOWDITCH, LUCAS, and SYLVESTER. (Ch.H. and I.H.)	<i>Each student attends twenty-one exercises throughout the year.</i>	31½

Roentgen Ray

WALTER J. DODD, M.D., *Instructor in the Use of the Roentgen Ray.*
 SAMUEL W. ELLSWORTH, M.D., *Assistant in the Use of the Roentgen Ray.*
 PERCY BROWN, M.D., *Assistant in the Use of the Roentgen Ray.*
 ARIAL W. GEORGE, M.D., *Assistant in the Use of the Roentgen Ray.*

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department, and provided arrangements can be made for such instruction with the Instructor in the Use of the Roentgen Ray.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 61.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Surgery

The Division of Surgery is composed of the departments of surgery, clinical surgery, orthopedic surgery, and surgical pathology.

MAURICE H. RICHARDSON, M.D., *Moseley Professor of Surgery.*

HARVEY CUSHING, M.D., *Professor of Surgery.*

PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery.*

EDWARD H. NICHOLS, M.D., *Assistant Professor of Surgical Pathology and Assistant Professor of Surgery.*

CHARLES A. PORTER, M.D., *Assistant Professor of Surgery.*

JOHN B. BLAKE, M.D., *Assistant Professor of Surgery.*

ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery.*

HUGH CABOT, M.D., *Instructor in Genito-Urinary Surgery.*

JAMES G. MUMFORD, M.D., *Instructor in Surgery.*

HOWARD A. LOTHROP, M.D., *Instructor in Surgery.*

WILLIAM E. FAULKNER, M.D., *Instructor in Surgery.*

SAMUEL J. MIXTER, M.D., *Lecturer on Surgery.*

GEORGE H. MONKS, M.D., M.R.C.S., *Lecturer on Surgery.*

FRANCIS B. HARRINGTON, M.D., *Lecturer on Surgery.*

CHARLES L. SCUDDER, M.D., *Lecturer on Surgery.*

FRED B. LUND, M.D., *Lecturer on Surgery.*

JAMES S. STONE, M.D., *Assistant in Surgery.*

ERNEST A. CODMAN, M.D., *Assistant in Surgery.*

JOSHUA C. HUBBARD, M.D., *Assistant in Surgery.*

DANIEL F. JONES, M.D., *Assistant in Surgery.*

LE ROI G. CRANDON, M.D., *Assistant in Surgery.*

WALTER C. HOWE, M.D., *Assistant in Surgery.*

CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*

FRED T. MURPHY, M.D., *Assistant in Surgery.*

JOHN HOMANS, M.D., *Assistant in Surgery.*

TORR W. HARMER, M.D., *Alumni Assistant in Surgery.*

JOHN B. SWIFT, Jr., M.D., *Fellow in Surgery.*

HALSEY B. LODER, M.D., *Austin Teaching Fellow in Surgery.*

Instruction is given by systematic lectures, surgical anatomy lecture demonstrations, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third Years.—A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technique; in the second week on surgical materials

and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. During the whole course surgical anatomy lectures will be given on special subjects in surgery. As early as may be in the second half of the second year, the course in surgical technique is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technique the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. All the students will be assigned to serve one month during the year beginning June 1, 1911, at one or other of these hospitals. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals, and also receives instruction in anesthesia. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 62.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Books recommended. — DaCosta, Modern Surgery. Rose & Carless, Manual of Surgery. Park's Modern Surgery. Lexer-Bevan, General Surgery. Keen's Surgery, 5 vols. von Bergmann and W. T. Bull, System of Surgery, 5 vols. Warren's Surgical Pathology. Cheever, Lectures on Surgery. Bryant's Operative Surgery. Binnie's Operative Surgery. Jacobson & Steward, Operations of Surgery. Stimson, Fractures and Dislocations. Scudder, Treatment of Fractures. Wharton, Minor Surgery and Bandaging. Mumford, Clinical Talks on Minor Surgery. Burrell and Blake, Case Teaching. Watson and Cunningham, Diseases and Surgery of the Genito-Urinary System. Keyes, Surgical Diseases of the Genito-Urinary Organs. White and Martin, Genito-Urinary and Venereal Diseases.

SECOND YEAR

HOURS

- Laboratory course in Surgical Pathology. Assistant Professor NICHOLS. (H.M.S.) *Twenty three-hour exercises during January.* (See Pathology.) 60
- Clinical lectures in connection with the above-course. Assistant Professor NICHOLS. (B.C.H.) *Twelve exercises during January.* 12
- Laboratory course in Surgical Technique. Dr. LOTHROP. *Six lectures to the entire class.* 6
- Twelve two-hour exercises for each student during second half of second year.* 24
- Systematic lectures, demonstrations, and recitations. Professor RICHARDSON, Assistant Professors PORTER, J. B. BLAKE, and GREENOUGH, and Dr. LOTHROP. (H.M.S.) *Four times a week.* 64
- Clinical demonstrations in connection with the above lectures. Professor RICHARDSON, and Assistant Professor PORTER (M.G.H.), and Assistant Professor J. B. BLAKE and Dr. LOTHROP (B.C.H.). *Four times a week.* 64

THIRD YEAR

- Systematic lectures, demonstrations, and recitations. Professor RICHARDSON, Assistant Professors PORTER, J. B. BLAKE, and GREENOUGH, and Dr. LOTHROP. (H.M.S.) *Three times a week, first half-year.* 48
- Clinical demonstrations in connection with above lectures. Professor RICHARDSON (M.G.H.) and Assistant Professors NICHOLS and BLAKE (B.C.H.). *Twice a week, first half-year.* 32
- Clinical lectures. Assistant Professor C. A. PORTER. (M.G.H.) *Once a week, second half-year.* 16
- Assistant Professors NICHOLS and J. B. BLAKE. (B.C.H.) *Once a week, second half-year.* 16
- Clinical exercises in surgical wards. Professor RICHARDSON, and Drs. HARRINGTON, LOTHROP, CODMAN, LUND, and CRANDON. *Each student attends sixteen exercises, first half-year.* 24
- Lectures. Genito-Urinary Surgery. Assistant Professor PAUL THORNDIKE. (B.C.H.) *Once a week, second half-year.* 16
- Section teaching at the Hospitals. *Each student attends six exercises, second half-year.* 9
- Case Teaching. Assistant Professor J. B. BLAKE. (H.M.S.) *Once a week, beginning March 1.* 12

Orthopedics

- EDWARD H. BRADFORD, M.D., *Professor of Orthopedic Surgery.*
- ROBERT W. LOVETT, M.D., *Assistant Professor of Orthopedic Surgery.*
- ELLIOTT G. BRACKETT, M.D., *Instructor in Orthopedics.*
- AUGUSTUS THORNDIKE, M.D., *Instructor in Orthopedics.*
- ROBERT SOUTTER, M.D., *Assistant in Orthopedics.*
- ROBERT B. OSGOOD, M.D., *Assistant in Orthopedics.*

Third Year. — Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachusetts General Hospitals.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 63.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Books recommended. — Thorndike, Orthopedic Surgery. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopädische Chirurgie.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Professor BRADFORD, Assistant Professor LOVETT, and Drs. BRACKETT, A. THORNDIKE, SOUTTER, and OSGOOD. (H. M. S. and Ch. H.) *Three times a week, December and January.* 20

Obstetrics and Gynaecology

CHARLES M. GREEN, M.D., *Professor of Obstetrics.*

FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology.*

MALCOLM STORER, M.D., *Instructor in Gynaecology.*

ERNEST B. YOUNG, M.D., *Instructor in Gynaecology.*

HOWARD T. SWAIN, M.D., *Instructor in Obstetrics.*

WILLIAM P. GRAVES, M.D., *Assistant in Gynaecology.*

LEO V. FRIEDMAN, M.D., *Assistant in Obstetrics and Gynaecology.*

JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*

NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*

ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*

OBSTETRICS

Third Year. — Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 64.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Peterson, The Practice of Obstetrics. Reynolds and Newell, Practical Midwifery. Lusk, The Science and Art of Midwifery. Jellett, Manual of Midwifery.

THIRD YEAR

HOURS

Lectures on the Theory and Practice of Obstetrics. Professor GREEN.
(H.M.S.) *Twice a week.* 64

Recitations. Assistant Professor NEWELL. (H.M.S.) *Once a week.* 32

Conferences. Professor GREEN, Assistant Professor NEWELL, and Drs.
SWAIN, FRIEDMAN, TORBERT, MASON, and DENORMANDIE. (H.M.S.)
Once a week. 32

Practical instruction in Clinical Obstetrics. Drs. SWAIN, FRIEDMAN,
TORBERT, MASON, and DENORMANDIE. *Throughout the year.*

GYNAECOLOGY

Third Year. — Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 64.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — Dudley, Principles and Practice of Gynaecology.

Collateral Reading. — Hirst, Text Book of Diseases of Women. Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women. Ashton, Practice of Gynaecology.

THIRD YEAR

HOURS

Lectures or recitations. Professor GREEN, Assistant Professor NEWELL,
and Drs. STORER and YOUNG. (H.M.S.) *Twice a week, second
half-year.* 32

Clinical exercises. Dr. STORER (B.D.), Dr. GRAVES (F.H. for W.), and
Drs. YOUNG and MASON (B.C.H.). *In sections, during the second
half-year. Each student attends six exercises.* 9

Dermatology and Syphilis

JOHN T. BOWEN, M.D., *Edward Wigglesworth Professor of Dermatology*

ABNER POST, M.D., *Assistant Professor of Syphilis.*

CHARLES J. WHITE, M.D., *Instructor in Dermatology.*

HARVEY P. TOWLE, M.D., *Assistant in Dermatology.*

C. MORTON SMITH, M.D., *Assistant in Syphilis.*

FREDERICK S. BURNS, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 64.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Collateral Reading.—Stelwagon. Duhring. Hyde. Robinson. Crocker. Kaposi. v. Ziemssen. Besnier. Van Harlingen. Jackson. Taylor.

THIRD YEAR

HOURS

Lectures, demonstrations, and recitations on diseases of the skin. Professor BOWEN and Dr. TOWLE. (H.M.S.) *Once a week during October and November.* 8

Clinical Dermatology. Professor BOWEN. (M.G.H.) *Once a week throughout the year.* 32

Clinical exercises. Drs. TOWLE and BURNS. (M.G.H.) *Each student attends eight exercises, second half-year.* 12

SYPHILIS

Third Year.—Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR

Lectures. Assistant Professor POST. (H.M.S.) *Once a week, December and January.* 8

Clinical lectures. Assistant Professor POST and Dr. SMITH. (B.D.) *Once a week, April and May.* 8

Clinical exercises. Assistant Professor POST and Dr. SMITH. (B.D.) *Each student attends six exercises, in sections, second half-year.* 9

Neurology and Psychiatry

JAMES J. PUTNAM, M.D., *Professor of Diseases of the Nervous System.*
PHILIP C. KNAPP, M.D., *Clinical Instructor in Diseases of the Nervous System.*

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

EDWARD COWLES, M.D., LL.D., *Instructor in Mental Diseases.*

GEORGE T. TUTTLE, M.D., *Clinical Instructor in Mental Diseases.*

WILLIAM NOYES, M.D., *Clinical Instructor in Mental Diseases.*

GEORGE A. WATERMAN, M.D., *Assistant in Neurology.*

NEUROLOGY

Second Year.—In the afternoons during December, Professor SOUTHARD gives a course of twelve lectures, twelve laboratory exercises, and three tests consisting of written and practical work. The lectures form an introduction to the course in neurology and psychiatry; they precede and are directly related with the laboratory work which takes up the histology of the infections and the classical degenerations of the nervous system, as well as a brief outline of the pathology of the cerebral cortex. The histology is brought into close relation with the reflexes and other simple clinical signs. A demonstration of these reflexes and signs with their structural correlations is given at the Danvers Insane Hospital.

An optional course, entitled *The Applications of Psychology to Neurology*, is offered in the course of this year.

Third Year.—During the first half-year one exercise a week and during the second half-year two exercises a week are given at the Massachusetts General Hospital. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards. (d) Work in the Case-system. Short examinations and conferences will be held at intervals during the year. The first half-year is devoted to the study of symptoms in their clinical and anatomical relations (Dr. TAYLOR); the second half-year, to morbid entities with special reference to the functional neuro-psychoses (Dr. PUTNAM).

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 65.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book.—Putnam and Waterman, *Studies in Neurological Diagnosis*.

Collateral Reading.—Oppenheim, *Diseases of the Nervous System* (latest German edition). Gowers, *Diseases of the Nervous System*. Dana, *Text-book of Nervous Diseases* (latest edition). Herter, *Diagnosis of Nervous Diseases* (latest revised edition). Starr, *Functional and Organic Diseases of the Nervous System*. Purves Stewart, *Diagnosis of Nervous Diseases*. Janet, *The Major Symptoms of Hysteria and Les Néuroses*. Sherrington, *The Integrative Action of the Nervous System*. Church-Peterson's *Nervous and Mental Diseases*. Monakow, *Gehirn-pathologie*. Schmaus und Sacki, *Pathologie des Rückenmarks*. Van Gehuchten, *Les centres nerveux*. *Anatomie normale et elements de neuropathologie*.

SECOND YEAR

HOURS

Lectures. Professor SOUTHARD. <i>One hour daily, afternoons in December.</i> (See Neuropathology.)	12
Laboratory work. Professor SOUTHARD. <i>Two hours daily, afternoons in December.</i> (See Neuropathology.)	24
Written and practical tests. Professor SOUTHARD. <i>Afternoons in December.</i> (See Neuropathology.)	9

THIRD YEAR

Lectures, Demonstrations, and Clinical exercises. Professor PUTNAM, and Drs. TAYLOR and WATERMAN. (M.G.H.) <i>Once a week, first half-year; twice a week, second half-year.</i>	48
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PSYCHIATRY

Third Year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Boston Insane Hospital.

Text-books.—Kraepelin, *Psychiatrie* (English translation; Defendorf—*Clinical Psychiatry*). Clouston, *Clinical Lectures on Mental Diseases*. Berkley, *Mental Diseases*. De Fursac, *Manual of Psychiatry*. White, *Outlines of Psychiatry*.

Collateral Reading.—Church and Peterson, *Nervous and Mental Diseases*. James, *Psychology*. Take, *Dictionary of Psychological Medicine*. Baldwin, *Dictionary of Philosophy and Psychology*. Hall, *Adolescence*. Sherrington, *Integrative Action of the Nervous System*. Morat, *Physiology of the Nervous System*.

THIRD YEAR.

Lectures. Dr. COWLES. (H.M.S.) <i>Once a week, second half-year.</i>	16
Clinical exercises. Dr. COWLES. (B.S.H.) <i>At stated intervals.</i>	3-4

Ophthalmology

MYLES STANDISH, M.D., *Williams Professor of Ophthalmology.*

ALEXANDER QUACKENBOSS, M.D., *Instructor in Ophthalmology.*

HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*

EDMUND W. CLAP, M.D., *Assistant in Ophthalmology.*

FRED M. SPALDING, M.D., *Assistant in Ophthalmology.*

Third Year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 66.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates..

Text-books.—DeSchweinitz. Fuchs. Hansell and Sweet.

Collateral Reading.—Loring, *On the Ophthalmoscope.* Landolt, *Refraction and Accommodation.* Norris and Oliver, *System of Diseases of the Eye.* Haab, *Atlas of the External Diseases of the Eye.*

THIRD YEAR

HOURS

Lectures. Professor STANDISH. (H.M.S.) *Twice a week, in October and November.* 16

Clinical exercises. Drs. QUACKENBOSS, HASKELL, CLAP, and SPALDING. (E. and E.I.) *In sections, first half-year. Twelve exercises for each student.* 18

Otology

CLARENCE J. BLAKE, M.D., *Walter Augustus Lecompte Professor of Otology.*

EUGENE A. CROCKETT, M.D., *Instructor in Otology.*

PHILIP HAMMOND, M.D., *Instructor in Otology.*

WILLIAM F. KNOWLES, M.D., *Assistant in Otology.*

ALFRED M. AMADON, M.D., *Assistant in Otology.*

HARRIS P. MOSHER, M.D., *Assistant in Otology.*

DAVID H. WALKER, M.D., *Assistant in Otology.*

Third Year.—Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 66.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—Brühl and Politzer. Bacon.

Collateral Reading.—Poltzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Blake and Reik.

THIRD YEAR

HOURS

Lectures. Professor BLAKE. (H.M.S.) *Twice a week, February and March; once a week, April and May.* 24

Clinical exercises. (E. and E.I.) *Every student attends six exercises, second half-year.* 9

Laryngology and Rhinology

ALGERNON COOLIDGE, Jr., M.D., *Assistant Professor of Laryngology.*

J. PAYSON CLARK, M.D., *Instructor in Laryngology.*

FREDERIC C. COBB, M.D., *Instructor in Laryngology.*

ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology.*

JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*

HARRIS P. MOSHER, M.D., *Instructor in Laryngology.*

HARRY A. BARNES, M.D., *Assistant in Laryngology.*

GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*

Third Year.—Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has twenty-four lectures during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 66.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

Lectures. Asst. Professor COOLIDGE, assisted by Drs. GOODALE, MOSHER, and WRIGHT. (H.M.S.) *Once a week, February and March; twice a week, April and May.* 24

Clinical exercises. Asst. Professor COOLIDGE, and Drs. CLARK, GOODALE, MOSHER (M.G.H.), COFFIN (B.C.H.), and COBB (B.D.). *In sections, second half-year. Twelve exercises for each student.* 18

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses and quarter-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned. Special arrangements will be made for students desirous of paying exclusive attention to other subjects than those listed, for example, pharmacology and comparative pathology.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before June 1.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER
DEPARTMENTS

ANATOMY.

Anatomy 1. Half-courses, afternoons, October and November; February and March. Dr. CHEEVER.

This is a course in which the three parts of the body are to be dissected. This work will be supplemented by the study of frozen sections, specimens, and a certain number of demonstrations.

N. B. — No one can take this course who has not passed his first-year anatomy.

Anatomy 2. Half-courses, afternoons, April and May. Professor DWIGHT, with the assistance of the staff.

This is a course in advanced anatomy intended for those who wish to investigate certain anatomical problems or to make special studies. Those who wish to elect this course must first consult the Professor of Anatomy, who reserves the right to reject any applicant.

COMPARATIVE ANATOMY.

Comparative Anatomy 1. Embryology. Half-courses, mornings, afternoons, or all day, second half-year. Assistant Professor LEWIS and Mr. JOHNSON.

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

In this course sixteen hours per week (at times chosen by the student) are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. Each student will be required to make a detailed study of at least three embryos. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction will be required.

The object of the course is, therefore, to give the student a knowledge of embryology by learning minutely the entire anatomy of three embryos of diverse stages of development, and to teach the methods of embryological research.

In place of a text-book, original publications will be used. At the discretion of the instructor students may have access to the extensive Embryological Collection and to the collection of models, many of which were made in this laboratory.

Comparative Anatomy 2. Histology. Dr. BREMER. Half-course, second half-year, at hours to be arranged with the instructor.

In this course students will be required to master the principal technical methods used in histology, and to study the differences, developmental and structural, in the various organs of the animals chiefly used in experimental medicine and animal economics. Special groups of organs may be chosen by the student for examination.

Comparative Anatomy 3. Half-course, afternoons, 4-6, October and November. Professor MINOT and Dr. WILLIAMS. Structure and development of the eye, ear, and nasopharynx.

Comparative Anatomy 4. Half-course, afternoons, 4-6, October and November. Professor MINOT and Dr. WILLIAMS. Structure and development of the urogenital system.

Comparative Anatomy 5. Half-course, afternoons, 4-6, December and January. Professor MINOT and Dr. WILLIAMS. Development and histology of the nervous system.

PHYSIOLOGY.

Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, the ear, and the upper respiratory tract. Afternoons, except Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Research in Biological Chemistry. Half-courses, forenoons, throughout the year; all day or afternoons, first half-year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of four kinds, including (*a*) instruction in methods of diagnosis depending upon bacteriological procedures; (*b*) instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils; (*c*) instruction in methods of opsonic-index work, with practical application; (*d*) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

Pathology 1. Professor F. B. MALLORY. Half-courses, all day, preferably second half-year.

This course is given in the pathological laboratory of the Boston City Hospital.

The work consists of (*a*) training in the technical methods used in pathology; (*b*) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (*c*) study of the more unusual pathological lesions; (*d*) research work in any line which a student demonstrates his fitness to pursue.

Pathology 2. Assistant Professor J. H. WRIGHT. Half-courses, all day, second half-year.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (*a*) training in the technical methods used in pathology; (*b*) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (*c*) study of the more unusual pathological lesions; (*d*) research work in any line which a student demonstrates his fitness to pursue.

Pathology 3. Protozoölogy. Assistant Professor E. E. TYZZER. Half-courses, afternoons, second half-year.

The first object of the course will be to enable the student to familiarize himself with a number of the more representative types and species of parasitic protozoa. The remainder of the course will consist in work upon a special problem, with the end in view of providing training in the investigation of protozoan infections.

Both experimental and histological methods will be employed. The experiments will necessarily be shaped according to the nature of the

problems taken up. The histological work will consist of the morphological study of the parasites and of the changes which they produce in the host. The course is open to a limited number of fourth-year students.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microorganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Medical Zoölogy. Half-course, afternoons, April and May.

This course consists of laboratory exercises and lectures on the various groups of protozoan and higher animal parasites and on insects and arachnids as carriers of infection. Qualified students may choose some special subject for detailed study. Class limited to ten students.

Comparative Pathology 3. Research. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

NEUROPATHOLOGY.

Neuropathology 1. Professor E. E. SOUTHARD. Half-courses, forenoons, afternoons, or all day, throughout the year.

The course is given at the Harvard Medical School. The method of the course will usually involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work. The student will also share in the regular work of the laboratory.

Limited to two during a given month. The instructor should be consulted in advance.

Neuropathology 2. Professor E. E. SOUTHARD and Dr. H. M. ADLER.
Half-courses, all day, throughout the year.

The course is given at the Danvers State Hospital. The method of the course will usually involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work. Students will be permitted to attend the daily case-readings of the hospital staff and to work upon selected cases in the wards. Much stress will be laid upon clinicopathological methods in neurology, psychiatry, and allied problems of internal medicine.

Limited to two during a given month. The instructor should be consulted in advance.

PREVENTIVE MEDICINE AND HYGIENE.

Preventive Medicine and Hygiene 1. Half-courses, afternoons, second half-year.

This course will consist in laboratory instruction, sanitary excursions, and, in part, of special research. The laboratory instruction will comprise the analysis of air, soils, water, adulterations of foods, milk, and its relation to the public health, investigations of disinfectants, studies in immunity, vaccination, the transmission of the communicable diseases and epidemiology.

Students must see the instructor in charge before enrolling in this course.

THERAPEUTICS.

Pharmacology and Toxicology. Half-courses may be arranged after consultation with the head of the department.

THEORY AND PRACTICE OF PHYSIC.

Theory and Practice 1. Half-courses, all day, throughout the year.

These courses will be given at the Massachusetts General Hospital. Each half-course of one month is limited to four students. This work, given in the wards and laboratory of the Massachusetts General Hospital, offers the student opportunity to make thorough study of selected medical cases, both by clinical and by laboratory methods, and to follow the progress of these cases from day to day until their discharge or until the end of the course. In addition to his own cases each student will be given opportunity to examine and to attend demonstrations upon the cases of his fellow students and to observe the general conduct of the wards. As occasion offers he will be enabled to see aspirations, lumbar punctures, and other such procedures, as well as operations upon such patients as are transferred to the surgical services. Attendance at autopsies will

constitute a part of the work. These courses will be given under the supervision of Dr. PALFREY, assisted by Dr. R. M. SMITH.

Theory and Practice 2. Half-courses, all day, throughout the year.

This work will be given at the Carney Hospital, and in the laboratory of the Department at the Medical School. Each half-course of one month is limited to four students. During the forenoons two students will alternate between the medical wards and the out-patient department of the Carney Hospital. The work there will consist in a consecutive study of ambulatory and ward patients with the application of appropriate laboratory methods, and offers the same opportunities of study as are described above under Theory and Practice 1. There will be also special opportunity for the medical observation of surgical cases before and after operation. During the afternoons the students will work in the laboratory of the Department at the Medical School. In the laboratory the students will follow the course of experimental disease in animals by clinical laboratory methods, and will study the pathology of lesions so produced. There will also be an opportunity for the continuation of more complicated laboratory procedures for which the hospital laboratory does not furnish facilities. These courses will be given under the supervision of Professor CHRISTIAN, assisted by Drs. LEEN and CHANNING FROTHINGHAM, Jr.

Theory and Practice 3. Half-courses, all day, throughout the year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. J. H. PRATT, with whom special arrangements for the course must be made.

Theory and Practice 4. Half-courses, afternoons, or all day, throughout the year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. CHANNING FROTHINGHAM, Jr., with whom special arrangements for the course must be made. The work will consist of investigation by means of animal experimentation with the study of pathological changes produced in various ways.

Theory and Practice 5. Half-courses, forenoons, or all day, beginning October 1st.*

These courses will be given at the Massachusetts General Hospital and in the laboratory of the Department at the Medical School, and will consist of instruction in special methods of study of clinical cases, and practice in the application of these methods of clinical investigation to hospital patients. The methods which will be studied are chiefly those of chemical

* Students taking these courses may continue their work during other months of the first half-year, but no student may begin these courses later than October 1st.

clinical investigation. These courses will be given under the direction of Dr. H. F. HEWES, with whom special arrangements for the course must be made.

CLINICAL MEDICINE.

Clinical Medicine I. Half-courses, all day, throughout the year.

Instruction in Clinical Medicine will be given during the fourth year as follows :

1. OUT-PATIENT WORK.
2. WARD WORK.
3. TUBERCULOSIS.
4. CLINICO-PATHOLOGY.
5. PRACTICAL THERAPEUTICS.
6. DISEASES OF METABOLISM.

1. Each student will be assigned to an out-patient clinic, either at the Boston City or the Massachusetts General Hospital, where he will act as assistant to the physician on duty. In this clinic he will spend each morning from 9 to 1 or until he has finished the work allotted to him. His work will be under the supervision of a member of the department, who will demonstrate selected cases, from the clinic, daily.

2. Each student will be assigned to a section, which will meet on one afternoon in the week in the west medical wards of the Massachusetts General Hospital, and will go on another afternoon to the Long Island Hospital. Cases will be assigned for study, and reports will be required from time to time. A member of the department will be present at these exercises to assist in the study of cases.

3. One afternoon each week will be spent in the study of tuberculosis. Sections will be taken by Dr. E. A. LOCKE to the Municipal Hospital, Mattapan.

4. One exercise in Clinico-pathology will be given each week by a member of the department, conjointly with a member of the Pathological Department, in which the clinical history and examination of the case will be compared with the autopsy findings.

5. One hour each week will be devoted to Practical Therapeutics. The various methods used in treatment of disease will be illustrated in the west medical wards.

6. One afternoon each week will be devoted to the study of diseases of metabolism under Dr. FRANKLIN W. WHITE at the Boston City Hospital.

Students will be marked upon four written cases, two each from their out-patient and ward work. Each case will be marked on a scale of 20 per cent. A mark on the scale of 20 per cent will be given upon the tuberculosis work.

TABULAR VIEW

HOOR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
A.M. 9-1	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.
P.M. 3-5	Wards 16 and 31 at M.G.H. or ward visit at Long Island.	Tubercu- losis exercise, Municipal Hospital, Mattapan.	Metabolic diseases, Boston City Hospital.	Wards 16 and 31 at M.G.H. or ward visit at Long Island.	Practical Therapeutics, Wards 16 and 31 at M.G.H. Clinico- pathology, Autopsy- room, M.G.H.	

TROPICAL MEDICINE.

A course in Medical Zoölogy may be found under Comparative Pathology 2.

A course in Protozoölogy may be found under Pathology 3.

Courses in the Bacteriology of Tropical Diseases may be obtained by special arrangement.

ROENTGEN RAY.

Roentgen Ray 1. Half-course, all day, throughout the year.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 9 A.M. to 12 M. at the Massachusetts General Hospital and Carney Hospital, Drs. WALTER J. DODD and PERCY BROWN. Afternoons from 3 to 5 P.M. at the Children's Hospital, Dr. ARIAL W. GEORGE.

Roentgen Ray 2. Quarter-courses, mornings, throughout the year.

This course is practically the same as that given in the mornings in the above course.

PEDIATRICS.

Pediatrics 1. Half-courses, all day, throughout the year.

The work will consist of clinical lectures in the wards and Out-patient departments of the Children's Hospital and of the Infants' Hospital, in the contagious wards of the South Department of the Boston City Hospital, and at the Burroughs Place Dispensary. The students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be taken up with the teaching in the wards and Out-patient departments of the Children's and Infants' Hospitals and with special instruction in cases of early tuberculosis at the Burroughs Place Dispensary. There will also be two lectures on the significance of the ear in early life given by Dr. CROCKETT in the wards of the Infants' Hospital.

The whole section will spend four hours a week at the South Department, where special instruction will be given by Professor MCCOLLOM and Dr. PLACE. In this course special instruction in general pediatrics as connected with contagious diseases will be given. Whenever possible the technique of intubation will be shown. Dr. GEORGE will give practical instruction by means of Roentgen plates in the normal development of early life and in the more important diseased conditions. Dr. LUCAS will, by especial arrangement, take the class to a model farm, where everything practical in connection with the milk supply for infants and young children will be taught. In connection with this Dr. ROTCH will give practical instruction in a research milk laboratory in the writing of prescriptions, in the routine of laboratory work and in the dietetics of early life. Each student will have assigned to him a case in the hospital wards for the purpose of making a special study of that special disease. Each student will also have a case assigned to him on two afternoons of each week where in the early part of the afternoon instruction in physical examinations will be given by the various instructors and assistants and in the latter part of the afternoon these cases will be discussed with Drs. ROTCH and MORSE. The examination for the degree will be an oral one held by the Professor of Pediatrics.

Drs. LADD, DUNN, BOWDITCH, and SYLVESTER will take part in the ward instruction of the students and also in the instruction given in the out-patient clinics.

SURGERY.

Surgery 1. Half-courses, all day, throughout the year.

The instruction will consist of ward work, the examination of cases, the recording of histories, the establishing of diagnoses, the etherization of patients, the dressing of injuries, wounds, and fractures, the close obser-

vation of operations, seeing the progress of a surgical patient, and the end results of cases. The out-patient work will consist of the establishing of diagnoses, the treatment of cases under direction, and the recording of histories. This work will be carried out at the hospitals, in the wards and out-patient departments, and will occupy a part of each day, and will be from time to time directed and supervised by instructors.

The afternoons will be devoted to library, museum, and literary work, surgical pathology, case teaching, regional surgery, and operative surgery. Seminars and conferences will be held as occasion requires. The student will be required to account for his daily work.

Surgery 2. Genito-urinary Surgery. Half-courses, forenoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

Surgery 3. Surgical Pathology. Half-courses, afternoons, December to May, inclusive.

The course is for students who desire to learn methods of original investigation in any line of the pathology of surgical diseases, especially in the line of experimental work. No formal instruction is given, but students will be assisted and directed in methods and technique. The cost of materials used in experimental work must be met by the student. A four months' course is advised.

Surgery 4. Clinical Surgical Pathology. Half-courses, forenoons, throughout the year.

The course will consist of a study of clinical cases with especial reference to the pathology of the lesions present and the use of the microscope in immediate diagnosis. The work will be supplemented with conferences and demonstrations in the Warren Museum.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Half-courses, afternoons, throughout the year.

The instruction will consist of section teaching, daily, throughout the year, at the Children's Hospital and Massachusetts General Hospital.

Orthopedic Surgery 2. Quarter-course, afternoons, October, December, February and April.

This course is given at the Children's Hospital and Massachusetts General Hospital. The instruction will consist of practical instruction in symptomatology and differential diagnosis.

OBSTETRICS AND GYNAECOLOGY.

Obstetrics and Gynaecology 1. Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the first half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor GREEN (Oct. to Jan.) and Assistant Professor NEWELL (Feb. to May), assisted by Drs. YOUNG, FRIEDMAN, and MASON, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, which affords ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be required to study, and report on, pathological specimens removed by operation, under the supervision of Professor MALLORY.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

DERMATOLOGY AND SYPHILIS.

Dermatology and Syphilis 1. Half-courses, forenoons, throughout the year.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique.

Dermatology and Syphilis 2. Quarter-courses, forenoons, throughout the year.

The work in this course will be the same as in Course 1, with the exception that it extends over one month instead of two.

NEUROLOGY AND PSYCHIATRY.

Neurology and Psychiatry 1. Half-courses, forenoons, throughout the year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows:—

(1) Daily systematic conferences on neurological topics.
 (2) History-taking, and personal examination of patients at the out-patient departments of the Massachusetts General and Boston City Hospitals.

(3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.

(4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.

(5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, *e. g.*, Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

The instruction in psychiatry will be as follows:—

(1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.

(2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.

(3) Clinical instruction and demonstrations at the Boston State Hospital one forenoon in each week during October and November, for all electing this course. Also an individual case will be assigned to be reported and discussed at the regular evening conference during the year.

OPHTHALMOLOGY.

Ophthalmology 1. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital.

Ophthalmology 2. Quarter-course, forenoons, in February.

This course will be devoted to instruction in the use of the ophthalmoscope.

OTOLOGY.

Otology 1. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to thorough clinical instruction.

Otology 2. Otoscopy and Diagnosis. Dr. D. H. WALKER. Quarter-course, forenoons, November or December.

This course will be given at the Massachusetts Charitable Eye and Ear Infirmary. The student will be instructed in the objective examination of the ear, in making hearing tests and in the determination of disturbances of equilibration. He will be given an opportunity to make diagnoses in a great variety of cases.

Otology 3. Pathology of the ear. Dr. A. M. AMADON. Quarter-course, afternoons, in February.

This course will be given at the Medical School. Instruction will consist of directed reading, illustrated by specimens, and in laboratory work under the personal supervision of the instructor.

LARYNGOLOGY.

Laryngology 1. Half-courses, forenoons, throughout the year.

The forenoon half-courses are held daily at the Massachusetts General Hospital, and are chiefly clinical in character. In addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and

applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Laryngology 2. Pathology of the nose, throat, and ear. Drs. JOSEPH L. GOODALE, HARRY A. BARNES, and ALFRED M. AMADON. Given in February and March. Daily, afternoons, except Saturdays, in the Pathological Building of the Harvard Medical School.

The course is designed to afford students a practical acquaintance with the characteristic histological alterations in the more important diseases of the nose, throat, and ear. Sections are stained and mounted by the student and retained by him as a collection to serve as a basis for the translation of clinical descriptive terms into their histological equivalents. The histological material is selected and prepared with special reference to clinical diagnosis and treatment.

In connection with the clinical courses in Ophthalmology, Otology, and Laryngology, an afternoon half-course, at the Medical School, is offered by each of the following departments: Comparative Anatomy (October and November), Comparative Physiology (December and January), Pathology (February and March), and by special arrangement Anatomy (April and May).

EXAMINATIONS

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The *Mid-Year* and *June examinations* are for those only who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for those only who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows:—

First Year.—Anatomy* (3 hrs.), Histology and Embryology* (3 hrs.), Physiology (3 hrs.), Biological Chemistry (3 hrs.).

Second Year.—Bacteriology* (1 hr.), Pathology* (2 hrs. written, 1 hr. practical), Preventive Medicine and Hygiene (1 hr.).

* The examinations in these subjects are held at the end of the first half-year.

Third Year. — Materia Medica and Therapeutics* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical, as follows: Surgery, 15 min.; Orthopedic Surgery, 15 min.; Surgical Technique, 15 min.; Surgical Pathology, 15 min., taken in second year), Clinical Surgery (1 hr. written, 1 hr. practical, as follows: Clinical Surgery, 45 min.; Genito-Urinary Surgery, 15 min.), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth Year. — The nature of the examinations is determined by each department. The student's credit is based on his daily written record of work, and on a practical or written examination at the end of each course, or on all combined.

In addition to the above examinations every student is required: —

To dissect the three parts of the body to the satisfaction of the demonstrator;

To receive practical instruction in anaesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

To take charge of and report on six cases in Obstetrics, under supervision and instruction.

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES

Degree of Doctor of Medicine

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical

* See note, page 67.

School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before *the first day of May*.

A graduate of another Medical School of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned, but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

Degree of Doctor of Public Health

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of D.P.H. must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of D.P.H., and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medicine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of D.P.H. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of D.P.H.

Degrees of Master of Arts and Doctor of Philosophy

The degree of MASTER OF ARTS is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and

to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the *fifteenth day of January*. See page 544, University Catalogue for 1910-11, for the conditions of candidacy for the degree of Master of Arts, and for the requirements of the Faculty of Arts and Sciences for this degree.

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students. Information about these courses may be obtained from Professor THEOBALD SMITH, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

Degree of M.D.

The fees are:—For matriculation, *five dollars*; for instruction, *two hundred dollars* for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, *one hundred and twenty dollars*. During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique; and a deposit of five dollars is required to cover breakage in the laboratory course in the Theory and Practice of Physic, the balance of this deposit to be returnable at the end of the year. In the fourth year a charge of three dollars is made for material used in the course in

* The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

Operative Surgery. A deposit of one dollar will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Payment of Fees

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of *one hundred and fifty-four dollars*; *each second-year student* is required to pay in the same manner *one hundred and twenty-eight dollars*; and *all other students* are required to pay, in the same manner, the sum of *one hundred and twenty dollars*. Fourth-year students electing Surgery are required to pay a charge of three dollars for material in Operative Surgery. The remainder of the tuition fee — *eighty dollars* each for all students — must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Degree of D.P.H.

A fee of \$150 is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

Degrees of A.M. and Ph.D.

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

Stillman Infirmary Fee

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman

Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at various prices can be obtained at the rooms of the Young Men's Christian Association, 2 Ashburton Place, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students:—

The Harvard Clinic.—The Medical School maintains in its buildings a clinic for the treatment of ambulatory cases of disease under the direction of a Committee in charge, and a visiting medical and surgical staff appointed by the Corporation. Committee in charge of the Clinic: HERBERT B. HOWARD, M.D., HENRY A. CHRISTIAN, M.D., DAVID CHEEVER, M.D. Visiting Physicians to the Clinic: FRANCIS W. PALFREY, M.D., CHANNING FROTHINGHAM, Jr., M.D., GEORGE C. SHATTUCK, M.D. Visiting Surgeons to the Clinic: DAVID CHEEVER, M.D., FRED T. MURPHY, M.D., SAMUEL ROBINSON, M.D.

The Peter Bent Brigham Hospital.—Construction of this general hospital on ground adjacent to the Medical School buildings will shortly begin. Dr. HENRY A. CHRISTIAN, Hersey Professor of the Theory and Practice of Physic, and Dr. HARVEY CUSHING, Professor of Surgery, have been appointed by the trustees of the hospital Physician-in-chief and Surgeon-in-chief respectively.

The Massachusetts General Hospital.—During the past year, more than fifty-five hundred patients were treated in the wards, and there were over one hundred and seven thousand visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, and Diseases of the Nervous System. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital.—During the past year, about thirteen thousand, five hundred cases were treated in its wards, and there were over one hundred and sixty-three thousand visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than seven hundred and fifty patients were delivered during the last year in the Hospital. In the out-patient department, more than two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary.—More than one hundred and seven thousand visits were made by patients at this public charity during the past year.

Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital. — The wards of the Hospital are devoted entirely to children under two years of age. About thirteen thousand visits are made by children of all ages annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than fourteen hundred cases were treated in the wards and about twenty-seven thousand visits were made to the out-patient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital. — During the past year three hundred and seventy-three patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, — pathological, chemical, and physiological, with psychological methods, — work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital. — During the past year eleven hundred and sixty-two patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Emergency cases are received; the whole number of patients admitted last year was four hundred and sixteen, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary. — Over seventy-eight thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.—This Hospital is designed particularly for the treatment of chronic diseases. It has three hundred beds, with an average daily number of patients of about two hundred and seventy. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Carney Hospital.—During the past year there were treated at this hospital two thousand five hundred and fifty-seven ward patients and in the out-patient department there were forty-four thousand six hundred and fifty-eight visits by patients. The surgical, medical, and orthopedic services are under the direction of single heads with continuous service, who with assistants manage both the house and out-patient departments.

Clinical instruction will be given in connection with the surgical, medical, orthopedic, and ophthalmic services, and opportunity will be afforded for a limited number of qualified men to engage in clinical investigation under the direction of the heads of services and their assistants. The orthopedic clinic offers special opportunities for the study of chronic joint affections in the adult.

The Free Hospital for Women.—This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital has a capacity of sixty-four beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week beginning at nine o'clock in the morning and at three o'clock in the afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in each of the four laboratory buildings contain the literature of the subjects taught in the building. These libraries are open to students daily and contain about 15,000 volumes, 25,000 pamphlets, and receive 230 different current periodicals. The students have a small general medical library of over 400 volumes and about 20 current periodicals for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 69,000 bound volumes and 38,000 pamphlets, and nearly 700 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

Fellowships

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and twenty-five dollars each, and of the last, two hundred and fifty dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of

five hundred and twenty-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand dollars. Founded in 1910 by **FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D.** "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

Scholarships

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

THE JAMES JACKSON CABOT SCHOLARSHIP; with an income of two hundred and seventy-five dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a scholarship "to aid and encourage practical work in scientific medicine."

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

The **LEWIS AND HARRIET HAYDEN SCHOLARSHIP** for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income, two hundred and fifty dollars, may be divided between two or more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

The **JOSEPH PEARSON OLIVER SCHOLARSHIP**, with an income of four hundred dollars, was founded in 1904 by patients of the late Joseph

Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of two hundred and fifty dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

The JOHN THOMSON TAYLOR SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious

students needing assistance. The next assignment in the Medical School will be made in 1912.

JAMES EWING MEARS SCHOLARSHIP IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of any degree from Harvard University. For further particulars, see page 552 of the Harvard University Catalogue for 1910-11.*

THE W. GRAHAM BOWDOIN, JR., SCHOLARSHIP; with an income of two hundred and fifty dollars, "to be awarded each year to a deserving student from the State of Maryland, who may be registered in any department of the University." For further particulars, see page 517 of the Harvard University Catalogue for 1910-11.

THE HUIDEKOPER SCHOLARSHIP; with an income of two hundred dollars; in memory of EDGAR HUIDEKOPER and FRANCES SHIPPEN HUIDEKOPER, of Meadville, Pennsylvania, offered by anonymous friends of the University for three years beginning with 1909-10, "to be enjoyed by a properly qualified graduate of Allegheny College, Meadville, Pennsylvania, who may desire to pursue his studies in one of the graduate departments of the University." For further particulars, see page 650 of the Harvard University Catalogue for 1910-11.

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further on page 525 of the Harvard University Catalogue for 1910-11.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. Founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859. The terms of gift are quoted further on page 570 of the Harvard University Catalogue for 1910-11.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever and Hayden Scholarships must be handed to the Director of Scholarships on or before *November 30*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

PRIZES

Boylston Medical Prizes.—These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1910 no prize was awarded, there being no essays submitted.

For 1911 two prizes are offered:—

1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.

2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology*. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before *January 1, 1911*.

For 1912 two prizes are offered :—

1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Pathology, or Bacteriology*. The subject to be chosen by the writer.

2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Physiology, Physiological Chemistry, Pharmacology, or Experimental Therapeutics*. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before *January 1, 1912*.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. *Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.*

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes :—

1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.

2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians : WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; FRANZ PFAFF, M.D., THEOBALD SMITH, M.D., WILLIAM T. PORTER, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes. — The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found on pages 501-507, and 550, 551, of the Harvard University Catalogue for 1910-11.

COURSES FOR SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work.

In addition, certain Departments offer courses, not a part of the regular curriculum, but specifically designed for special students; as follows: —
ANATOMY. Professor DWIGHT, Assistant Professor J. WARREN, and assistants.

(1) Course for artists, teachers, and others. (Essentially the regular first-year course with dissection.)

(2) Special instruction and opportunities for research.

PHYSIOLOGY. Professor CANNON.

Physiological Research.

COMPARATIVE PHYSIOLOGY. Professor PORTER.

Physiological Research.

BIOLOGICAL CHEMISTRY. Professor FOLIN and Assistant Professor HENDERSON.

Biochemical Research.

PHARMACOLOGY. Professor PFAFF and Dr. NELSON.

Pharmacological Research.

BACTERIOLOGY. Professor ERNST, and Drs. FROTHINGHAM and PAGE.

(1) Elementary courses beginning at other times than October 1 and February 1, for groups of not fewer than four students.

(2) Advanced instruction to groups of not fewer than four students.

(3) Research course for advanced students. Desks will be assigned at any time.

PATHOLOGY. Assistant Professor WRIGHT.

(1) Research in bacteriology and pathology.

(2) Instruction in bacteriological and pathological technique and in diagnosis by laboratory methods.

(3) Weekly demonstrations in pathological anatomy in conjunction with Assistant Professor RICHARD C. CABOT, who will discuss the clinical aspects of the cases.

COMPARATIVE PATHOLOGY. Professor THEOBALD SMITH.

Research. Problems in experimental and comparative pathology with special reference to infectious and parasitic diseases.

PREVENTIVE MEDICINE AND HYGIENE. Professor ROSENAU.

Research in Problems of Preventive Medicine and Hygiene.

SURGERY. Professor RICHARDSON and Dr. HUBBARD.

(1) Special courses in surgical technique.

(2) Research.

These courses will be given in the Laboratory for Surgical Research that has been recently established under the direction of Professor RICHARDSON and Dr. HUBBARD. Application may be made to either of those gentlemen. The laboratory is equipped with the necessary apparatus for surgical operations on animals and special courses of an elementary character in the technique of operation can be provided, or opportunity for research work on surgical problems may be given to persons who are satisfactorily qualified.

ORTHOPEDIC SURGERY.

(1) Advanced instruction.

(2) Research work.

Opportunity is offered to qualified physicians who wish to devote special attention to orthopedic surgery.

Applications can be made to Dr. E. H. BRADFORD, 133 Newbury Street, Boston.

HOURS AND FEES

Applicants for the above courses should make arrangements as to time and fees with the respective heads of departments. They should then register and pay their fees at the Dean's office.

COURSES FOR GRADUATES

The Faculty has arranged for graduates of recognized medical schools an improved plan of instruction embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

A list of courses offered for graduates will be found on pages 88-95.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions : —

Massachusetts General Hospital,	Children's Hospital,
Boston City Hospital,	McLean Hospital (for the Insane),
Boston Dispensary,	Boston State Hospital,
Massachusetts Eye and Ear Infirmary,	Carney Hospital,
Boston Lying-in Hospital,	Free Hospital for Women.
Infants' Hospital,	

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

All regular lectures (not clinical) in the undergraduate department of the School are open to men doing graduate work during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June.

FEES

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

SUMMER SCHOOL OF MEDICINE

From June 1st to September 30th, 1911, courses in all the departments of the School are offered to students of the Harvard Medical School, students in good standing in other reputable medical schools, physicians having a State license to practice who are graduates of a recognized medical school, and such other persons as are approved by the Committee of the Summer School. Most of the courses extend for one month. Students and practitioners are able during their attendance to combine two or more clinical and laboratory courses with an economy of time. The clinical courses are given in the numerous hospitals and dispensaries in and around Boston. The laboratory courses are offered in the laboratories of the School or the hospitals.

A list of these courses will be ready for distribution in February. For further information address the Director of the Harvard Summer School of Medicine, Harvard Medical School, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1910-11

Subject	Instructor	Place	Months during which Course is offered	Fee
Anatomy				
1. Special Anatomy Instruction	Prof. Dwight	Medical School	Special *	Special. *
2. Anatomy of the Joints	Prof. Dwight and Dr. Adams	Medical School	Special *	\$25.
3. Dissection Courses	Asst. Prof. Warren and Dr. Cheever	Medical School	Oct.—May.	15-30.
4. Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	Feb., Mar., April	25.
5. Anatomy of Nose and Throat	Dr. Mosher	Medical School	Mar.	25.
6. Genito-Urinary Anatomy, Male	Dr. —	Medical School	Oct.—May	25.
7. Genito-Urinary Anatomy, Female	Dr. —	Medical School	Oct.—May	25.
Comparative Anatomy				
†8. Elementary Human Histology and Embryology	Profs. Minot and Lewis, Dr. Bremer and Mr. Johnson	Medical School	Oct., Nov., Dec., Jan.	50.
†9. Anatomy of Higher Vertebrates	Dr. Williams	Medical School	Oct., Nov., Dec., Jan.	50.
†10. Embryology of Vertebrates	....	Medical School	Feb., Mar., Apr., May	50
†11. Advanced Histology	Dr. Bremer	Medical School	Feb., Mar., Apr., May	50.
†12. Structure and Development of the Eye, Ear, and Nasopharynx	Prof. Minot and Dr. Williams	Medical School	Oct. and Nov.	25.
†13. Structure and Development of the Urogenital System	Prof. Minot and Dr. Williams	Medical School	Oct. and Nov.	25.

†14. Development and Histology of the Nervous System	Prof. Minot and Dr. Williams	Medical School	Dec. and Jan.	25.
†15. Research	Prof. Minot	Medical School	Special *	Special.*
Physiology				
†16. Detailed Study in Physiology	Prof. Cannon and Dr. Martin	Medical School	Oct.—May	Special.*
†17. Research in Physiology	Prof. Cannon and Dr. Martin	Medical School	Oct.—May	Special.*
Comparative Physiology				
†18. Experimental Work in Physiology	Prof. Porter	Medical School	Oct.—May	No fee.
Biological Chemistry				
†19. Advanced Individual Work	Prof. Folin and Asst. Prof. Henderson	Medical School	Oct.—May	10.
Bacteriology				
†20. Research and General Laboratory Work in Bacteriology	Prof. Ernst	Medical School	Special *	25.
Pathology				
21. Research and General Laboratory Work in Pathology	Profs. Councilman, Mallory, and Wright	Med. Sch., Boston City and Mass. General Hosps.	Special *	Special.*
22. Pathology 1	Prof. Mallory	Boston City Hospital	Feb.—May	25.

* When time and fee are "special," arrangements must be made with the Instructor.

† Women admitted.

Subject	Instructor	Place	Months during which Course is offered	Fee
23. Pathology 2	Asst. Prof. Wright	Mass. General Hospital	Feb.—May	25.
Tropical Medicine				
24. Pathology 3. Protozoölogy	Asst. Prof. Tyzzer	Medical School	Feb.—May	25.
Comparative Pathology				
†25. The Comparative Pathology and Etiology of Infectious and Parasitic Diseases	Prof. Smith and Assistants	Medical School	Oct., Nov.	30.
Neuropathology				
26. Neuropathology	Prof. Southard	Medical School	Oct.—May	35.
27. Neuropathology	Prof. Southard and Dr. Adler	Danvers State Hospital	Oct.—May	35.
Preventive Medicine and Hygiene				
†28. Preventive Medicine and Hygiene	Professor Rosenau, Dr. Kendall and Mr. Amoss	Medical School	Feb., Mar.	50.
†29. Intestinal Bacteriology	Dr. Kendall	Medical School	Nov.	25
Pharmacology				
†30. Research in Pharmacology	Prof. Pfaff	Medical School	Special *	Special. *

Subject	Instructor	Place	Months during which Course is offered	Fee
Tropical Medicine				
†47. Medical Zoology	Prof. T. Smith	Medical School	April and May	Special.*
Roentgenology				
48. Practical Course in Roentgenology	Dr. Dodd	Mass. General Hospital	Oct., Nov., Jan., Feb., Mar., Apr., and May	30.
Surgery				
49. Surgery 1	....	Hospitals and Medical School	Oct.—May	25.
50. Research in Surgical Pathology	Asst. Prof. Nichols	Medical School	Dec. 1—June 1	Special.*
51. General Major Surgery	Drs. Monks, Lund, and Lothrop	Boston City Hospital	Jan., Feb., and Mar.	25.
52. Major Genito-Urinary Surgery	Asst. Prof. Paul Thorndike	Boston City Hospital	Oct.—May	25.
53. Major and Operative Surgery	Asst. Prof. J. B. Blake and Dr. Faulkner	Boston City Hospital	Nov.—March	35.
†54. General Surgery of Children	Dr. J. S. Stone	Children's Hospital	Oct.—May	25.
†55. Operative Surgery	Dr. Hubbard or Dr. Homans	Medical School	Oct.—May	25.
†56. Surgical After-treatment	Dr. Crandon	Boston City Hospital	Mar., Apr., May	25.
†57. Major Surgery	Dr. Scannell	Boston City Hospital	Oct., Dec., Feb.	25.
†58. Minor Surgery	Dr. Scannell	Boston City Hospital	Jan., Mar., Apr., May	25.
59. Clinical and Operative Surgery	Dr. F. Cobb	Mass. General Hospital	Oct., Nov., Dec., Jan.	30.
60. Operative Surgery	Dr. Monks	Harvard Medical School	Special*	25.

Orthopedic Surgery					
†61. General Orthopedic courses	Surgery, 4	Profs. Bradford, Nichols, and Lovett, and Drs. Brackett, Thorndike, George, Osgood, Soutter, & Brown	Children's Hospital Mass. General Hospital Carney Hospital	Oct.—Feb.	50.
Obstetrics					
62. Clinical Obstetrics, 8 courses		The Department Staff	Boston Lying-in Hosp.	Oct.—May	25.
63. Clinical Obstetrics, 8 courses		Address Prof. Green	Boston Lying-in Hosp.	Special *	25.
64. Operative Obstetrics, 8 courses		The Department Staff	Medical School	Oct.—May	25.
65. Clinical and Operative Obstetrics		Address Prof. Green	Boston Lying-in Hosp. and Medical School	Oct.—May	25.
Gynaecology					
66. A Gynaecology, 8 courses B Gynaecology, out-patient, 8 courses A and B Gynaecology		Profs. Green and Newell, and Drs. Young, Friedman, and Mason	Boston City Hospital Boston City Hospital Boston City Hospital	Oct.—May Oct.—May Oct.—May	25. 25. 25.
†67. Gynaecology		Dr. Storer	Boston Dispensary	Jan.	\$25.
†68. Operative Gynaecology		Dr. Storer	St. Elizabeth's Hospital	Apr., May	25.
69. A. Gynaecology B. Gynaecology		Dr. Graves Dr. Graves	Free Hospital for Women Free Hospital for Women	Oct.—May Special *	75. Special.*
Pediatrics					
†70. Pediatrics, 8 courses		Profs. Rotch, McCollom, and Morse, Drs. Ladd, Dunn, Bowditch, Lucas, Sylvester, and Place Dr. Morse Dr. Dunn	Infants', Children's, Boston City Hospital, and Medical School	Oct.—May	25.
†70a. Pediatrics †70b. Pediatrics				Jan.—Feb. Oct.—Nov.	10. 10.

* When time and fee are "special," arrangements must be made with the Instructor.

† Women admitted.

Subject	Instructor	Place	Months during which Course is offered	Fee
Dermatology				
71. Dermatology, 4 courses	Prof. Bowen, Drs. C. J. White, Towle, and Burns	Mass. General Hospital	Oct.—May	25.
72. Advanced Dermatology, 4 courses	Prof. Bowen, Drs. C. J. White, Towle, and Burns	Mass. General Hospital	Oct.—May	50.
Syphilis				
73. Syphilis	Asst. Prof. Post and Dr. C. M. Smith	Boston Dispensary	Oct.—Jan.	25.
Neurology				
†74. Advanced Clinical Neurology	Prof. Putnam, Drs. Taylor, Waterman, and Knapp	Mass. General Hospital and Boston City Hosp.	Oct.—May	15
†75. Clinical Neurology	Dr. Taylor	Mass. General Hospital	Nov.—Feb.	20.
†76. Clinical Neurology	Dr. Waterman	Mass. General Hospital	Oct.—Feb.	20.
†77. Clinical Neurology	Dr. Knapp	Boston City Hospital	Feb.—May	20.
78. Laboratory and Clinical Neurology	Dr. Taylor	Med. Sch., Mass. Gen. and Long Island Hosps.	Oct.—May	50-75.
Psychiatry				
79. Psychiatry	Drs. Cowles and Tuttle	McLean Hospital and Boston State Hospital	Oct.—May	25.
Otology				
80. Research in Otology	Prof. Blake	....	Oct.—May	Special.*

†81. Operative Otolgy	Dr. Hammond	Eye and Ear Infirmary	May	25.
†82. Oper. Surg. of Temp. Bone	Dr. Knowles	Medical School	Special *	25.
†83. Clinical Otolgy	Dr. Walker	Eye and Ear Infirmary	Nov., Dec., and Jan.	25.
84. Surgical Anatomy of the Temp. Bone	Dr. Walker	Medical School	Special *	Special.*
Ophthalmology				
†85. Fourth-Year Elective. Ophthalmology	....	Mass. Charitable Eye and Ear Infirmary	Feb.—May	25.
86. Ophthalmology	Prof. Standish and Drs. Haskell and Clapp	Mass. Charitable Eye and Ear Infirmary	Feb. and March	50.
87. Ophthalmology—Clinical and Operative	Dr. Quackenboss	Mass. Charitable Eye and Ear Infirmary	Oct.—Nov.	25.
†88. Ophthalmology	Dr. Spalding	Mass. Charitable Eye and Ear Infirmary	Nov.—June	25.
†89. Ophthalmic Pathology	Dr. Verhoeff	Mass. Charitable Eye and Ear Infirmary	Feb. and March	50.
Laryngology and Rhinology				
90. Diseases of the Throat and Nose	Prof. Coolidge, Drs. Cobb, Clark, Goodale, and Mosher	Mass. General Hospital	Oct.—May	25.
†91. Pathology of the Nose and Throat	Drs. Goodale, Barnes, and Amadon	Medical School	Feb., March	50.
†92. Microscopic Pathology of the Nose and Throat	Dr. Barnes	Medical School	Special *	25.
†93. Teeth and their relation to Diseases of the Nose and Throat	Dr. G. H. Wright	Mass. Gen. Hosp. and Harvard Dental School	Oct.—Feb.	10.

* When time and fee are "special," arrangements must be made with the instructor.

† Women admitted.

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1910

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
Anatomy								
1. Anatomy of the Nose and Accessory Sinuses	Dr. Mosher	Medical School	12	Aug. 1	Aug. 26	M. W. F.	8-10 P.	\$25
2. Surgical Anatomy of Abdomen	Dr. Cheever do. do.	Medical School do. do.	6-8	July 9	..	Special †	3-5	25
			6-8	July 19	..	Special †	3-5	25
			6-8	Aug. 9	..	Special †	3-5	25
3. Regional Anatomy	Dr. Cheever do. do. do. do. do.	Medical School do. do. do. do. do.	4-8	July 5	..	Special †	..	20
			4-8	July 11	..	Special †	..	20
			4-8	July 18	..	Special †	..	20
			4-8	July 25	..	Special †	..	20
			4-8	Aug. 1	..	Special †	..	20
			4-8	Aug. 8	..	Special †	..	20
4. An. of male genito-urinary organs	Dr. Barney do.	Medical School do.	4-8	Aug. 15	..	Special †	..	20
			4-8	Aug. 22	..	Special †	..	20
			5	July 5	9 July 22	M. Tu. W. T. F. do.	3-5 3-5	25 25
5. An. of fem. genito-urinary organs	Dr. Barney do.	Medical School do.	5	July 11	15 July 29	M. Tu. W. T. F. do.	3-5 3-5	25 25
			5	July 25	July 29	do.	3-5	25
Comparative Anatomy								
6. Element. Histology & Embryology	Dr. Scammon and Mr. Johnson	Medical School	23	July 5	July 30	Daily	9-1	25
7. Advanced course in Histology and Embryology	Dr. Scammon and Mr. Johnson	Medical School	23	July 5	July 30	Daily	9-1	15
Physiology								
8. Practical Physiology	Dr. Martin	Medical School	26	July 1	July 30	Daily	2-5	40
			21	July 1	July 30	Daily	9-5	25

9. Physiol. of the Nervous System and the Sense Organs	do.	do.	26	July	1 July	30 Daily	9-1	30
Biological Chemistry								
10. Lab. Practice and Lectures in Bio- logical Chemistry	Prof. Folin and Mr. Bloor	Medical School	31	June 15	July 27	M. Tu. W. T. F.	9-1 2-5	50
11. Research in Biological Chemistry	Prof. Folin	Medical School	..	June July	..	Special† Special†	..	25 25
Bacteriology								
12. Infectious Diseases of Animals	Dr. L. Frothingham	Medical School	..	..	..	Special†	..	50
13. Bacteriology	Dr. Everett	Medical School	20	July 1	July 29	M. Tu. W. T. F.	3-15	30
14. Bacteriology	Dr. Worthington	Medical School	20	July 1	July 29	M. Tu. W. T. F.	3-5	30
15. Clinical Bacteriology	Dr. Floyd	Medical School House of the Good Samaritan B. Consump. Hosp	26	July 1	July 30	Daily	3-6	30
Pathology								
16. Pathology and Path. Technic do.	Drs. Rhea and Haythorn do.	Medical School do.	21 21	June 1 July 1	June 30 July 29	M. Tu. W. T. F. do.	2-6 2-6	25 25
17. Path. Anat. and Autop. Technic do.	Dr. Oscar Richardson do.	Mass. Gen. Hosp do.	26 27	July 1 Aug. 1	July 30 Aug. 31	Daily Daily	9-1 2-5 9-1 2-5	35 35
Comparative Pathology								
18. Medical Zoölogy do.	Dr. E. L. Walker do.	Medical School do.	22 21	June 1 July 1	June 30 July 29	M. Tu. W. T. F. do.	1½-5 1½-5	30 30

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
Neuropathology								
19. Neuropathology	Drs. Southard, Sims, and Richards	Medical School	20	Aug. 1	Aug. 26	M. Tu. W. T. F.	2-5	\$30
20. Neuropathology, General Prob- lems and Technique	Drs. Southard and Mooers	Medical School	20	July 1	July 28	M. Tu. W. T. F.	..	30
21. Neuropathological Research	Drs. Southard, Mooers, Adler, Richards, Sims					Special †		
22. Clinical Pathology with relation to Psychiatry do.	Dr. Adler do.	Danvers State Hosp. do.	40 40	July 1 Aug. 1	July 29 Aug. 26	M. Tu. W. T. F. do.	.. ..	50 50
Tropical Medicine								
23. Protozoology	Dr. Tyzzer	Medical School	21	July 1	July 29	M. Tu. W. T. F.	1.30-5	25
24. Tropical Medicine do.	Dr. Tobey do.	Medical School do.	26 27	July 1 Aug. 1	July 30 Aug. 31	Daily Daily	2-6 2-6	30 30
Legal Medicine								
25. Legal Medicine	Dr. Magrath					Special †		
Preventive Medicine and Hygiene								
26. Preventive Med. and Hygiene	Dr. Kendall	Medical School	44	July 1	Aug. 20	Daily	9-1	40
27. Intestinal Bacteriology	Dr. Kendall	Medical School	53	July 1	Aug. 31	Daily	..	40

Pharmacology and Therapeutics									
28. Experimental Pharmacology and Toxicology	Dr. Tyrode	Medical School	20	June 27	July 22	M. Tu. W. T.F.	2-5	35	
29. Rational Therapeutics	Dr. Tyrode	Medical School	10	July 4	July 22	M. Tu. W. T.F.	5-6	15	
Internal Medicine									
30. Physical Diagnosis	Dr. R. C. Cabot	Mass. Gen. Hosp.	25	July 1	July 30	Daily	10½-11½ 2½-4½	60	
31. Diet, and Diabetes Mellitus do.	Dr. Joslin do.	Medical School do.	8 8	July 12 Aug. 9	July 27 Aug. 24	Tu. W. Th. do.	2-30 2-30	10 10	
32. Diseases of Stomach, Intestines, Kidneys, Blood do.	Dr. Hewes do.	Mass. Gen. Hosp. do.	20 19	June 3 July 5	June 30 July 29	M. Tu. W. T.F. do.	9-12 9-12	30 30	
33. Diseases of the Digestive Organs	Dr. F. W. White	Boston City Hosp.	15	June 6	June 22	Daily	10-12	30	
34. Physical Diagnosis do.	Dr. Robey do.	Boston City Hosp. do.	24 24	July 1 Aug. 1	July 29 Aug. 27	Daily Daily	10-1 10-1	25 25	
35. Clin. Diagnosis in Relation to Post- Mortem Findings	Drs. W. H. Smith, Lee and O. Richardson	Mass. Gen. Hosp.	4	July 2	July 25	see p. 32	3-5	15	
36. Practical Therapeutics	Drs. Smith and G. C. Shattuck	Mass. Gen. Hosp.	12	July 1	July 28	Tu. W. Th.	3½-4½	25	
37. Clinical Medicine do.	Drs. Leen and Robbins do.	Carney Hosp. do.	26 27	July 1 Aug. 1	July 30 Aug. 31	Daily Daily	9½-12 9½-12	35 35	
38. Lab. Course in Clin. Diagnosis do. do.	Dr. Overlander do. do.	Medical School do. do.	21 20 23	June 1 July 1 Aug. 1	June 30 July 29 Aug. 31	M. Tu. W. T.F. do. do.	Spec'l† Spec'l† Spec'l†	30 30 30	
39. Clinical Pathology do.	Dr. C. Frothingham, Jr. do.	Medical School do.	19 20	July 5 Aug. 1	July 30 Aug. 26	M. Tu. W. T.F. do.	2-5 2-5	35 35	

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
Pediatrics								
40. Pediatrics	Dr. Lucas					Special	Spec'l	Spl.
41. Pediatrics	Dr. Ladd	Infants' Hosp.	12	June 1	June 29	M. W. F.	11-12	20
42. Pediatrics	Dr. Lucas	Children's Hosp.	13	June 2	June 30	Tu. Th. S.	11-12	20
43. Pediatrics	Dr. Dunn	Infants' Hosp. Children's Hosp.	26 21	July 1 July 1	July 30 July 29	Daily M. Tu. W. T. F.	9-1 3-5	50 50
44. Pediatrics	Dr. Bowditch	Floating Hospital	12	July 18	July 30	Daily	8-9	20
45. Pediatrics	Dr. Morse	Children's Hosp.	14	Aug. 1	Aug. 31	M. W. F.	10-11	20
46. Pediatrics	Dr. Bowditch	Children's Hosp.	13	Aug. 2	Aug. 30	Tu. Th. S.	11-12	20
47. Pediatrics	Dr. Place	Boston City Hosp.	9	Aug. 1	Aug. 29	M. F.	12	20
48. Pediatrics	Dr. Talbot	Medical School	5	Aug. 3	Aug. 31	W.	11½-1	15
49. Pediatrics	Dr. Talbot	Floating Hospital	12	Aug. 15	Aug. 27	Daily	8-9	20
50. Pediatrics	Dr. Dunn	Infants' Hospital	10	Aug. 1	Aug. 30	M. Tu.	3½	20
51. Pediatrics	Dr. Fairbanks	Children's Hosp.	9	Aug. 3	Aug. 31	W. S.	4-5	20
52. Pediatrics	Dr. Lucas	Children's Hosp.	8	Aug. 4	Aug. 26	Th. F.	3-5	20
53. Pediatrics	Dr. George	Children's Hosp.	8	Aug. 4	Aug. 26	Th. F.	3-5	20
54. Pediatrics	Dr. Morse	Children's Hosp.	12	Sept. 2	Sept. 30	M. W. F.	10-11	20
55. Pediatrics	Dr. Bowditch	Children's Hosp.	13	Sept. 1	Sept. 29	Tu. Th. S.	11-12	20
56. Pediatrics	Dr. Place	Boston City Hosp.	7	Sept. 6	Sept. 27	M. Tu.	3-4	20
57. Pediatrics	Dr. Fairbanks	Children's Hosp.	8	Sept. 3	Sept. 28	W. S.	4-5	20
58. Pediatrics	Dr. George	Children's Hosp.	10	Sept. 1	Sept. 30	Th. F.	3-5	20

Roentgenology		Dr. Dodd	Mass. Gen. Hosp.	17	July	1	July 29	M. W. Th. F.	9-12	30
59. Roentgenology		Dr. George	Children's Hosp.	21	July	1	July 30	M. Tu. W. T. S.	24-5	30
do.		Dr. Dodd	Mass. Gen. Hosp.	17	Sept.	1	Sept. 30	M. W. Th. F.	9-12	30
		Dr. George	Children's Hosp.	21	Sept.	1	Sept. 30	M. Tu. W. T. S.	24-5	30
Surgery										
60. Major Clinical and Operative Surgery, with, during July, Surgical Pathology		Drs. Lund and Nichols, assisted during July by Dr. F. L. Richardson	City Hospital	24	June	1	June 29	Daily	10-12	25
do.		do.								
do.		do.	City Hos. & H. M. S. City Hospital	24	July	1	July 29	Daily	9-12	25
61. Major Clinical Surgery		Drs. Porter and Jones	Mass. Gen. Hosp.	25	June	1	June 30	Daily	10-1	30
do.		do.	do.	25	July	1	July 30	Daily	10-1	30
do.		do.	do.	25	Aug.	1	Aug. 29	Daily	10-1	30
do.		do.	do.	25	Sept.	1	Sept. 30	Daily	10-1	30
62. Major Surgery		Dr. Lothrop	City Hospital	26	July	1	July 30	Daily	10	12
63. Surgery, Clinical and Laboratory		Drs. J. B. Blake and Hubbard	City Hospital and Medical School	12-13	July			M. W. F.		25
do.		do.	do.	12-13	Sept.			M. W. F.		25
64. Operative Surg. on the Cadaver		Drs. Faulkner, Crandon, Scannell	Medical School	10	June			Special†		25
do.		do.	do.	10	July			do.		25
do.		do.	do.	10	Aug.			do.		25
do.		do.	do.	10	Sept.			do.		25
65. Surgical Diseases of Children		Dr. Stone and volunteer assistant surgeons	Children's Hosp.	30	June	2		M. W. F.	10½	25
do.		do.	do.	30	July	2		M. Tu. W. S.	3½	25
do.		do.	do.	30	Aug.	2		M. Tu. W. S.	3½	25
do.		do.	do.	30	Sept.	1		M. W. F.	10½	25
		do.	do.	30	Sept.	1		M. Tu. W. S.	10½	25
66. Surgical After Treatment		Dr. Crandon	City Hospital	20	June	1	June 29	M. Tu. W. T. F.	9-11	25

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
67. Out-Patient Fractures and Surgery do.	Dr. Crandon do.	City Hospital do.	26 26	Aug. Sept. 1	Aug. 30 Sept. 30	Daily Daily	9-11 9-11	25 25
68. Major Surgery	Dr. Howe	City Hospital	27	Aug. 1	Aug. 31	Daily	9-12	25
69. Minor Surgery do.	Dr. Howe do.	City Hospital do.	25 25	June July 1	June 30 July 30	Daily Daily	9-12 9-12	25 25
70. Genito-Urinary Surgery	Dr. O'Neil	Boston Dispensary	25	June 1	June 30	Daily	10-1	25
71. Operative Surgery do.	Dr. Homans do.	Medical School do.	6 6	June Aug.	.. ..	Special† ..	.. ..	25 25
Orthopedic Surgery								
72. Orthopedic Surgery	Prof. Bradford, and Drs. Lovett, Brackett, Goldthwait, A. Thorn- dike, Nichols, Osgood, Soutter, Brown, George, Adams, and Buchholz do.	Children's Hosp., Boston Dispensary Warren Museum Carney Hospital Mass. Gen. Hosp. do.	26	June 1	June 30	Daily	Spec'lt†	\$50
do.			26	July 1	July 30	Daily	Spec'lt†	50
Obstetrics								
73. Clinical Obstetrics	Dr. Swain, assisted by Drs. Friedman, Tor- bert, and Mason	Lying-in Hospital	..	May 1	Oct. 1	Daily	Spec'lt†	30
74. a. Clinical Obstetrics do. b. do. c. do.	Dr. Swain do. Dr. De Normandie Dr. Torbert	Lying-in Hospital do. do. do.	25 26 26 25	June July 1 Aug. 1 Sept. 1	June 30 July 30 Aug. 31 Sept. 30	Daily Daily Daily Daily	11 11 11 11	20 20 20 20
Gynaecology								
75. Diagnosis and Treatment do. do.	Dr. Young do. do.	City Hospital do. do.	12 12 12	June July Aug.	.. .. ..	Special† Special† Special†	9½ 9½ 9½	30 30 30

76. Gynaecology	Dr. Friedman	City Hospital	13	July	1 July 30	Tu. T. S.	10-12	25
77. Gynaecology — Diagnosis and Treatment	Dr. Friedman	City Hospital	12	Sept. 1	Sept. 30	M. W. F.	9½	30
78. Minor Gynaecology do. do.	Dr. Mason do. do.	City Hospital do. do.	13 13 13	June Aug. Sept.	2 June 30 2 Aug. 30 1 Sept. 29	Tu. Th. S. Tu. Th. S. Tu. Th. S.	9½ 9½ 9½	25 25 25
79. Gynaecology do.	Dr. Rushmore do.	Carney Hospital do.	25 27	July Aug.	1 July 30 1 Aug. 31	Daily Daily	9-12 9-12	25 25
80. Gynaecological Pathology do.	Dr. Rushmore do.	Medical School do.	20 23	July Aug.	1 July 29 1 Aug. 31	M. Tu. W. T. F. do.	2-5 2-5	25 25
81. Clinical Dermatology do.	Dr. White do.	Mass. Gen. Hosp. do.	26 26	July Sept.	1 July 30 1 Sept. 30	Daily Daily	9-12 9-12	25 25
82. Clinical Dermatology	Dr. Burns	Mass. Gen. Hosp.	27	Aug	1 Aug. 31	Daily	9-12	25
83. Syphilis do. do.	Drs. Post and C. M. Smith do. do.	Boston Dispensary do. do.	20 20 20	June July Aug.	1 June 29 1 July 29 1 Aug. 26	M. Tu. W. T. F. do. do.	10-12½ 10-12½ 10-12½	25 25 25
84. Neurology	Drs. Putnam, Taylor, and Waterman	Mass. Gen. Hosp.	27	Aug.	1 Aug. 31	Daily	9-12	30
85. Neurology	Drs. Taylor & Waterman	do.	25	Sept.	1 Sept. 30	Daily	9-12	30

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
Ophthalmology								
86. Clinical Ophthalmology do.	Dr. Spalding do.	Eye and Ear Inf. do.	24 24	June July 1	June 29 July 29	Daily Daily	9½-11½ 9½-11½	30 30
87. Clinical Ophthalmology do.	Dr. Quackenboss do.	Eye and Ear Inf. do.	24 24	Aug. Sept. 1	Aug. 27 Sept. 29	Daily Daily	9-12 9-12	25 25
88. Clin.-Path. Course in Dis. of the Eye	Dr. Verhoeff	Eye and Ear Inf.	35	Aug. 1	Sept. 10	Daily	9-12	50
Otology								
89. Oper. and Clin. Otology do.	Drs. Hammond and Amadon do.	Eye and Ear Inf. do.	24 24	June July 1	June 30 July 28	Daily Daily	9-11 9-11	35 35
90. Clinical Otology do.	Dr. Amadon do.	Eye and Ear Inf. do.	24 24	June July 1	June 30 July 28	Daily Daily	9-11 9-11	25 25
91. Surgical Anatomy of the Ear	Dr. Hammond	Medical School	12	July 1	July 27	M. W. F.	11-1	25
92. Op. Surg. of the Temporal Bone	Dr. Walker	Medical School	12	Sept. 1		Special †		25
93. Op. Surg. of the Temporal Bone	Dr. Knowles	Medical School	12	Sept.		Special †		25
Laryngology and Rhinology								
94. Laryngology and Rhinology do. do. do.	Drs. Clark, Goodale, and D. C. Greene, Jr. do. do. do.	Mass. Gen. Hosp. do. do. do.	24 24 24 24	June July Aug. Sept. 1	June 29 July 29 Aug. 27 Sept. 29	Daily Daily Daily Daily	10-12 10-12 10-12 10-12	25 25 25 25
95. Laryngology and Rhinology do. do.	Dr. Coffin do. do.	Boston City Hosp. do. do.	12 12 12	June July Sept. 2	June 27 July 29 Sept. 30	M. W. F. M. W. F. M. W. F.	9-11 9-11 9-11	15 15 15
96. Microscopic Path. of the Nose and Throat do.	Dr. Barnes do.	Medical School do.	20 20	June July 1	June 29 July 29	M. Tu. W. T. F. do.	3-5 3-5	25 25

97. Path. of the Nose and Throat	Drs. Goodale and Barnes	Medical School	12	July		M. Tu. W. T. F.	Spec [†]	30
98. Clin. Laryngology and Rhinology do. do.	Dr. Barnes do. do.	Boston Dispens ^{ry} do. do.	24 24 24	July Aug. Sept.	1 1 1	Daily Daily Daily	10-12 10-12 10-12	25 25 25
99. Clin. Laryngology and Rhinology in Children do. do.	Drs. Greene and Garland do. do.	Children's Hosp. do. do.	16 16 16	June July Aug.	2 1 1	M. Tu. Th. F. Daily Daily	3.30-5 3.30-5 3.30-5	25 25 25
100. Teeth and Their Relation to Dis- eases of the Nose and Throat	Dr. G. H. Wright	Mass. Gen. Hosp. Medical School Dental School	12	July	15	M. W. F.	11-1	15

† Time to be arranged with instructor.

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	<i>October.</i> Anatomy. Lecture. <i>November, December.</i> Demonstrations and Laboratory Work.	<i>Oct., Nov., Dec.,</i> Anatomy. Lecture.	<i>October.</i> Anatomy. Lecture. <i>November, December.</i> Demonstrations and Laboratory Work.	<i>Oct., Nov., Dec.,</i> 9-11. Histology. <i>January, 9-11.</i> Anatomy. Lecture.		
10-1		<i>October, November, December, January.</i> Demonstrations and Laboratory Work.				<i>Oct., Nov., Dec.,</i> <i>January, 10-1.</i> Anatomy. Lecture and Demonstrations
2-6	<i>January.</i> Anatomy. Lectures, Demonstrations, and Laboratory Work.					
2-2.30		<i>October, November, December.</i> Histology. Lecture.				
2.30-6		Histology. Laboratory.				

FIRST YEAR. — Second Half-Year

PHYSIOLOGY. FEBRUARY

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-1			Laboratory Experiments.			
			<i>March, April, May.</i>			
9-10			Lecture or Demonstration			
10-12.15			Laboratory Experiments.			
12.15-1			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.		Laboratory.	

SECOND YEAR. — First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.	JANUARY.
9-12	Pathology. Laboratory.	1 week. Pathology. Laboratory. Daily.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory. T. Smith. Daily.	9-10 Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				9-12 Tuesday, Thursday, and Saturday.
				10.30-12 Monday, Wednesday, and Friday. Pathology. Laboratory.
12-1		Pathology. Lectures. Daily.		12-1 Pathology. Lectures. Daily.
2-3	Bacteriology. Lectures. Daily except Saturdays.		Pathology of the Nervous System. Laboratory. Southard.	Daily except Saturday. Surgical Pathology. Laboratory. Nichols.
3-5.30	Bacteriology. Laboratory. Daily except Saturdays.			

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
	M. G. H.	M. G. H.	B. C. H.	M. G. H.	M. G. H.	B. C. H.
9-10	Clinical Medicine Clinic Shattuck	Surgery Clinic M. H. Richardson	Surgery Clinic Lothrop	Theory & Practice Clinic Badger	Surgery Clinic M. H. Richardson	Clinical Medicine Clinic Jackson
10-11						Surgery Clinic Lothrop
11-12	Section Work					
1-3	Clinical Pathology. Bldg. C.					
3-4	Hygiene. L. Rosenau Bldg. E.	Theory & Practice. L. Christian Room 201 Bldg. A.	Hygiene. L. Rosenau Bldg. E.	Hygiene. L. Rosenau Bldg. E.	Theory & Practice. L. Christian Room 201 Bldg. A.	
4-5	Surgery. L. Room 201 Bldg. A.	Material Medica and Pharmacology L. & R. Bldg. E.	Pharmacology. L. Pfaff Bldg. E.	Surgery. L. Room 201 Bldg. A.	Pharmacology. L. Pfaff Bldg. E.	
5-6	Surgical Technique 6 lectures Lothrop Room 201 Bldg. A.	Surgery. L. Room 201 Bldg. A.			Surgery. R. Lothrop and Greenough Room 201 Bldg. A.	

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
<i>Class Exercises</i> 9-10	Theory and Practice Clinic Hewes, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.	Theory and Practice Clinic, Stone, Lee, or Lord, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.
10-11	Surgery Clinic M. H. Richardson M. G. H.	Clinical Surgery Clinical L. Nichols, J. B. Blake B. C. H.	Dermatology Clinic Bowen, M. G. H.	Neurology Clinic Taylor, M. G. H.	Pediatrics Clinical L. Rotch, C. H.	Theory and Practice Clinic Pratt, M. G. H.
<i>Sections</i> 11-1	Section Work.					
2-3		Theory & Practice, L. Christian, Room 201 Bldg. A.			Theory & Practice, L. Christian, Room 201 Bldg. A.	
3-4	Obstetrics, L. Green Room 205 Bldg. A.	<i>Dec., Jan.</i> Surgery, R. Lothrop and Greenough Room 201, Bldg. A.	Obstetrics Conference Swain Room 205 Bldg. A.	Obstetrics, L. Green Room 205 Bldg. A.	Obstetrics, R. Newell Room 205 Bldg. A.	
4-5	Surgery, L. Room 201 Bldg. A.	<i>Oct., Nov.</i> Dermatology, L. Bowen, Room 201 Bldg. A. <i>Dec., Jan.</i> Syphilis, L. Post, Room 205 Bldg. A.	Surgery, L. Room 201 Bldg. A.	Pediatrics, L. Rotch Room 201 Bldg. A.	Therapeutics, L. Pfaff Bldg. E.	
5-6	<i>Oct., Nov.</i> Ophthalmology Standish Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Bradford Room 201 Bldg. A.	<i>Oct., Nov.</i> Surgery, R. Lothrop and Greenough Room 201, Bldg. A.	<i>Oct., Nov.</i> Ophthalmology Standish Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Bradford Room 201 Bldg. A.	<i>Oct., Nov.</i> G.-U. Surgery, L. P. Thorndike Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Bradford Room 201 Bldg. A.		

THIRD YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
<i>Class Exercises</i> 9-10	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic H. Jackson B. C. H.	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic H. Jackson, B. C. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.
10-11	Surgery. Clinic C. A. Porter M. G. H.	Clinical Surgery Clinical L. Nichols, J. B. Blake B. C. H.	Dermatology Clinic Bowen, M. G. H.	G.-U. Surgery Clinical L. P. Thorndike, or Monks B. C. H.	<i>Feb., Mar.</i> Pediatrics Clinical L. Rotch, C. H. Morse, No. Grove St. <i>Apr., May</i> Syphilis Clinical L. Post, B. D.	Theory and Practice Clinic Pratt, M. G. H.
<i>Sections</i> 11-1	Section Work.					
2-3					Psychiatry Cowles Room 201, Bldg. A.	Psychiatry Clinic Cowles, B. S. H.
3-4	Obstetrics. L. Green Room 205 Bldg. A.	Surgery Case Teaching J. B. Blake Room 205, Bldg. A.	Obstetrics Conference Swain, Room 205 Bldg. A.	Obstetrics. L. Green Room 205 Bldg. A.	Obstetrics. R. Newell Room 205 Bldg. A.	
4-5	Pediatrics. L. & R. Morse Room 205 Bldg. A.	Pediatrics. L. Rotch Room 201 Bldg. A.	Gynaecology L. or R. Green, Room 205 Bldg. A.	Laryngology Lecture Coolidge, Room 205 Bldg. A.	Gynaecology. L. Green Room 205 Bldg. A.	
5-6	<i>Feb., Mar.</i> Orology Lecture C. J. Blake, Room 205 Bldg. A. <i>Apr., May</i> Laryngology Lecture Coolidge Room 205, Bldg. A.	Clinical Medicine Case Teaching Cabot Room 205 Bldg. A.	Clinical Medicine Case Teaching Cabot Room 205 Bldg. A.	Otology Lecture C. J. Blake, Room 205 Bldg. A.		

DEGREES

ON FEBRUARY 23, 1910, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

Charles Hervey Bailey, A.B. (*Brown Univ.*) 1903.

Joseph Daniel Collins, S.B. (*Purdue Univ.*) 1905.

Otto John Hermann, A.B. 1906.

Robert Watson Hinds, A.B. 1905.

Selim Shenudah.

Charles Atsatt Sparrow, A.B. (*Amherst Coll.*) 1906.

M.D. cum Laude

Harold Heber Smith, A.B. (*Leland Stanford Jr. Univ.*) 1905.

ON COMMENCEMENT DAY, JUNE 29, 1910, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

Kenneth Ira Balcom, A.B. (*Colgate Univ.*) 1905.

Hans Barkan, A.B. (*Leland Stanford Jr. Univ.*) 1905.

Howard Wheaton Brayton, PH.B. (*Brown Univ.*) 1906.

Harry Carver Clarke.

Oliver Holman Clarke, A.B. (*Leland Stanford Jr. Univ.*) 1906.

George Bartlett Corcoran, A.B. (*Brown Univ.*) 1906.

George V Cring, S.B. (*Earlham Coll.*) 1906, A.B. (*Univ. of Michigan*) 1908.

Thomas Edward Cunningham, Jr., A.B. 1906.

Oren Newton Dages, A.B. (*Princeton Univ.*) 1906.

Charles Murphy Dane, A.B. 1906.

John Murphy Dane, S.B. 1907.

Warren Fales Draper, A.B. (*Amherst Coll.*) 1906.

Albert Menzo Dunlap, A.B. (*Univ. of Illinois*) 1906.

Yates Wellington Faison, A.B. (*Davidson Coll.*) 1906.

Royal Houghtelin Finney, A.B. (*Kansas Univ.*) 1907.

Alexander Forbes, A.B. 1904, A.M. 1905.

George Napoleon Gaboury, A.B. (*Yale Univ.*) 1907.

Edwin Daniels Gardner, A.B. 1906.

James Edward Grady, Jr., A.B. (*Holy Cross Coll.*) 1906.

Gilbert William Haigh, A.B. 1907.

Burton Everett Hamilton, A.B. 1907.

Joseph Gordon Hegarty, A.B. 1907.

Robert Richard Hellmann, A.B. 1906.

Frank Miller Howes, A.B. 1907.

Hector Jacques, A.B. (*Laval Univ.*) 1899.

- Alpheus Felch Jennings, A.B. (*Univ. of Michigan*) 1907.
 Clarence Moore Kelley, A.B. 1906.
 Foster Standish Kellogg, A.B. 1906.
 Harold Libby, A.B. 1907.
 William Russell Lightbody, PH.B. (*Brown Univ.*) 1906.
 John Crandall Lindsay, A.B. (*Colby Coll.*) 1906.
 Caro Wolfram Lippman.
 Andrew Roy MacAusland, S.B. 1907.
 James Joseph McCarty, Jr., A.B. 1907.
 Charles Leo McCrossan, A.B. 1907.
 Earle Haggett MacMichael, A.B. (*Bowdoin Coll.*) 1907.
 Leon Irving Madden, A.B. (*Clark Univ.*) 1905.
 Matthew Patrick Mahoney, A.B. (*Georgetown Univ.*) 1906.
 Henry Chase Marble, A.B. (*Clark Univ.*) 1906.
 Charles Nash Meader, A.B. (*Colby Coll.*) 1906.
 Otto Henry Mueller, A.B. (*State Univ. of Iowa*) 1903.
 George Parcher, A.B. (*Bowdoin Coll.*) 1906.
 Charles Lewis Phillips, A.B. (*Bates Coll.*) 1906.
 Constantine Popoff.
 Emery Moulton Porter, PH.B. (*Brown Univ.*) 1906.
 George Harold Shedd, A.B. 1905.
 Philip Albert Edward Sheppard.
 Samuel Starr, S.B. 1907.
 Cleon Walter Symonds.
 Leeson Oren Tarleton, PH.B. (*Brown Univ.*) 1906.
 Alexander Bismarck Terrell, S.B. (*Univ. of Chicago*) 1907.
 Stanley Emanuel Tron (*Royal Liceo Gioberti, Turin, Italy*) 1903.
 John Gormley Walsh, A.B. (*Brown Univ.*) 1906.

M.D. cum laude

- Leo Williams Bortree, A.B. (*Colorado Coll.*) 1906.
 Alexander Manlius Burgess, A.B. (*Brown Univ.*) 1906.
 Peter Pineo Chase, PH.B. (*Brown Univ.*) 1906.
 Bronson Crothers, A.B. 1905.
 George David Cutler, S.B. 1907.
 Ralph Winward French, A.B. 1907.
 James Lauder Gamble, A.B. (*Leland Stanford Jr. Univ.*) 1906.
 Isaac Gerber, A.B. 1907.
 Frederick Carpenter Irving, A.B. 1906.
 Ralph Davis Leonard, A.B. 1907.
 Richard Henry Miller, A.B. 1905.
 Walter Walker Palmer, S.B. (*Amherst Coll.*) 1905.
 Charles Tripp Ryder, A.B. 1906.

ADMISSION EXAMINATION

1910

CHEMISTRY

ORGANIC CHEMISTRY.

[Write all constitutional formulas.]

1. Describe the general characteristics of organic acids.
2. Describe the properties and reactions of glucose.
3. Write the constitutional formulas of methyl alcohol, iso-butane, glycerine, the several di-nitro benzenes (di-nitro-benzols), ethyl acetate.
4. Discuss the saponification of esters.

INORGANIC CHEMISTRY.

[Write all formulas.]

1. Describe ammonium chloride, ferrous sulphate, alum, hydrofluoric acid, bromine, cobalt, plumbic chromate, bleaching powder, sodium bi-carbonate, nitrogen.
2. Describe fully a method for the commercial preparation of table salt.
3. Define the term atomic weight. How may the atomic weight of an element be determined?
4. Discuss Avogadro's hypothesis.

EXAMINATION PAPERS

(Annual Examinations, 1910)

First Year Studies

ANATOMY — Professor DWIGHT

1. Describe the radius and ulna with the ligaments connecting them.
2. Describe the caecum.
3. Describe the floor of the fourth ventricle of the brain and give the relations of the cranial nerve nuclei that lie just beneath it.
4. Describe the circle of Willis and its branches.
5. Describe the popliteal space and its contents.

HISTOLOGY AND EMBRYOLOGY — Professor MINOT

[Each student is given sections numbered to correspond with the questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

1. Name the organ, the plane of section, and the staining of the sections numbered 1 *a*, 1 *b*, 1 *c*, etc.

2. Identify the organ, and describe its structure so far as shown by the section.

Give the answer to this question in the form of a short essay. Arrange the subject matter in good order, and use good English. Add drawings to illustrate the text. Note that the answer must be based both as to text and drawings upon what can be observed in the section. Any statement as to the structure of the organ may be added for the sake of clearness, provided it is placed in parenthesis to show that it is not based on the observation of the actual section used in this examination.

3. Describe the origin of the liver in the embryo.

PHYSIOLOGY — Professor CANNON

[Answer any five questions. Mention, where possible, experimental evidence in support of your statements.]

1. Describe some of the conditions that affect the activity of neurons.
2. Give evidence for afferent nerves from muscles and state the importance of the impulses they convey.
3. What is Weber's law and what are its limitations? Illustrate.

4. Describe the passage of a contraction wave over the heart and explain "heart block."
5. What is the evidence that absorption is not due to simple osmosis and diffusion?
6. Discuss the interrelations and the digestive processes.

BIOLOGICAL CHEMISTRY.—Professor FOLIN

Answer ten questions.

1. Discuss the composition of fats.
2. Discuss the composition and cleavage products of glycogen.
3. Discuss the origin and significance of the "acetone bodies."
4. Discuss the composition and properties of casein.
5. Give the graphic formulae of alanin, cystin, tyrosin, aspartic acid, and glycylglycin.
6. In what form are proteins absorbed?
7. What are the chief inorganic constituents of blood plasma and of urine?
8. Describe the quantitative determination of urea in urine.
9. Describe the phenyl hydrazine test for sugar.
10. Discuss the regulation of the osmotic pressure in the blood.
11. Discuss the acidity of urine.

Second Year Studies

BACTERIOLOGY—Professor ERNST

1. Define sterilization and give various methods by which it can be accomplished (*a*) with reference to surgical instruments; (*b*) with reference to culture media.
2. Define (*a*) vaccine; (*b*) antitoxin. Give an example of each and discuss the mode of action.
3. Define (*a*) immunity; (*b*) active immunity; (*c*) passive immunity; (*d*) natural immunity, and give an example.
4. How would you prove that a specimen of pus submitted for examination was tubercular?

PATHOLOGY.—Professor COUNCILMAN

Write questions 1 and 2 on separate papers. Write legibly, express yourself clearly and simply.

1. Question in *Neuropathology*:—
 - (*a*) Name several ways in which pyramidal tract disease may be produced.
 - (*b*) Make description or diagram of pyramidal tract disease as shown in cervical, thoracic, and lumbar regions of spinal cord.
 - (*c*) Name effects, if any, upon muscular movement, sensation, the reflexes and muscular coordination of, first, pyramidal tract disease, and, secondly, posterior column disease.

2. Question in *Parasitology*:—

Describe the lesions which may result from the presence of *Uncinaria duodenalis*, *Filaria bancrofti*, *Taenia echinococcus*, and *Plasmodium precox*.

Questions in *Pathology*:—

3. Abscess of the liver: Varieties, etiology, pathological anatomy.

4. Necrosis of the liver: Situations, causes, microscopic appearance of necrotic cells.

5. Name and give pathology of a condition in the liver due to disturbance of the circulation.

6. Discuss acute yellow atrophy of the liver:—

(a) The gross appearance; (b) histology; (c) general etiology.

7. Discuss jaundice:—

(a) Causes; (b) histological changes produced in liver; (c) what change will be found in kidney?

8. Discuss cirrhosis of the liver:—

(a) Varieties, with gross and microscopic anatomy; (b) effect of lesions on circulation within the liver; (c) channels of collateral circulation; (d) repair and regeneration.

PREVENTIVE MEDICINE AND HYGIENE.—Professor ROSENAU

1. What is the nitrogen cycle? Discuss its sanitary significance with special reference to soil pollution, sewage purification, and water filtration.

2. Discuss the relation between cow-pox and small-pox. What is the proper method of vaccination? What are the indices of a successful take? What is the nature, degree, and duration of the immunity?

3. What are the chief sources of the communicable diseases of man? Discuss the principal channels or ways by which the infection reaches man from these sources.

4. How would you manage a case of typhoid fever from the standpoint of preventing the spread of the disease?

Third Year Studies

MATERIA MEDICA AND THERAPEUTICS.—Professor PFAFF

1. Pharmacological action and therapeutic uses of silver.

2. Pharmacological action and therapeutic uses of pilocarpine.

3. Pharmacological action and therapeutic uses of digitalis.

4. Pharmacological action of arsenic. Mention newer preparations and state the dangers incident to their use.

5. Pharmacological action and therapeutic uses of morphine.

6. General methods of treatment of acute and chronic renal disease.

7. Having to treat a case of obesity, what measures would you advise to reduce body weight?

8. General methods of treatment of affections of the respiratory system.

9. Write prescriptions for the following drugs, avoiding abbreviations, and giving full directions to the patient: (a) hydrochloric acid; (b) potassium iodide; (c) rhubarb; (d) paraldehyde; (e) ergot; (f) silver.

THEORY AND PRACTICE OF PHYSIC.—Professor CHRISTIAN

1. Discuss epidemic cerebro-spinal meningitis with regard to symptomatology, diagnosis, and treatment.

2. Haematuria occurs in a patient. What would lead you to infer that in this case it was an accompaniment of (*a*) renal tuberculosis; (*b*) chronic interstitial nephritis?

3. Diabetes mellitus. Describe in detail your method of treating a moderately severe case.

4. What would be found in the physical examination of the heart in a case of mitral stenosis in the stage of broken compensation? What changes would occur in these physical signs with the reestablishment of compensation?

*5. (*a*) What is the pathological lesion in a case of Adams-Stokes disease (heart block)?

(*b*) What is the most frequent portal of entry of the causative agent of uncinariasis?

(*c*) What is the most frequent site of the haemorrhage which leads to hematemesis in cases of cirrhosis of the liver?

(*d*) The occurrence of Grocco's sign (paravertebral triangle of dullness) is of diagnostic aid in what conditions?

(*e*) Bilateral wrist-drop suggests what causal factor?

6. What is the relation between a dicrotic pulse and the disease, typhoid fever?

7. What changes in a case of lobar pneumonia would suggest the development of empyema?

8. Outline the history of a patient with chronic duodenal ulcer, incorporating in the history such things as would suggest to your mind "duodenal ulcer" as a probable diagnosis.

9. Describe the spinal cord lesions that occur in pernicious anaemia, and the symptoms referable to them.

10. Give the symptoms of an acute attack of gout. Describe treatment of such an attack.

* Each sub-division of question 5 can be answered with a single short sentence. No discussion of each topic is desired.

CLINICAL MEDICINE.—Professor SHATTUCK

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive, though correct, diagnosis. Write out all prescriptions in full.]

CASE 1. — A girl of 15 is seen April 12, 1910, in coma and with incontinence of urine and feces. During the examination she recovered consciousness and wept whenever she was touched, but would (or could) not speak. This has been her mental condition for the past five days. There was fever for the first two days of this period ranging from 100 to 103. Since then the temperature has been normal. The neck can be rotated freely; but can be only partially flexed, the chin remaining an inch from the breast bone. The right arm and leg are limp and apparently powerless. The left arm and leg are moved normally.

The pupils are equal and react normally. There is now no strabismus, but a double internal squint is said to have been previously noted by a nurse.

The heart's apex is in the fifth space, one inch outside the nipple. A loud systolic murmur is heard at the apex and in the left axilla. The pulmonic is much louder than the aortic second. The lungs, abdominal viscera, and urine show nothing abnormal. There is no oedema. The blood shows no anaemia, but the leucocytes number 19,000, 80% of which are polynuclear.

It was afterwards learned that she had had jerky movements of the hands, feet, and face for about two months and that the onset of the present symptoms was sudden—five days ago.

Diagnosis? Prognosis? Treatment?

CASE 2.—A married woman of 30 entered the hospital in December. Her family history is negative. She takes tea and coffee freely and a certain amount of whiskey daily, beer once or twice a week. She has had no children or miscarriages. Usually well, with the exception of typhoid fever six or seven years ago.

For the past six months she has had more or less constant distress in epigastric region; for the past three months vomiting after meals. She has been growing weaker of late, but felt as well as usual up to the afternoon of entrance to hospital, when her husband thought "she began to look badly," and went for a doctor; when he returned forty-five minutes later she was unconscious.

Physical examination shows a well developed, fairly well nourished woman. Patient unconscious, breathing easily, skin dry and somewhat harsh, mucous membranes pale, conjunctivae slightly yellow. Pupils equal and react, teeth neglected, throat negative, glands palpable in neck, axillae, groins. Odor of alcohol to breath. Nothing abnormal in heart or lungs. Abdomen—full, soft, tympanitic in central portions; dulness in flanks, shifting with change of position. Fluid wave obtained. Veins of abdominal wall prominent. Liver dulness fourth space to four inches below costal margin—five inches below ensiform, edge felt. Spleen not palpable. Reflexes—abdominal and knee jerks not obtained; rest present and normal. Very slight oedema of legs. Several small hemorrhagic areas scattered over trunk. Hb. 85%; white count 17,600. Urine, high, neutral, 1020, albumin a trace, bile present, no sugar. Sediment, a few rare blood corpuscles, a little pus in clumps.

During her stay in the hospital the temperature rose somewhat, 100–101; pulse 100–120; respiration 20–25.

Diagnosis? Prognosis? Treatment?

CASE 3.—A hostler of 52 was seen April 1, 1910. His family history is negative. He has had gonorrhoea four times, and for many years has taken five or six drinks of whiskey a day, one before breakfast.

A week ago he had a slight pain in the right lower chest preceded by a chill. The next day he felt much better and went to work, but on the day following this he woke up with a "terrible" pain in the right axillary region, much increased by deep breathing. He has had a slight hacking cough, but has raised nothing. There has been no nausea or vomiting and, so far as he knows, no fever.

When first seen at a hospital his temperature was 98.4, pulse 130, resp. 28. He was a well developed man, showing slight cyanosis all over. His

trunk was covered with scratch marks. Lymph nodes were palpable in the axillae and groins. The heart's impulse extended ten cm. from mid-sternum in the fifth interspace and was not felt in the sixth. The left border of dullness corresponded with this point. The sounds were clear, rapid, and of fair quality. The pulmonic second was slightly accentuated. The right lung was dull below the third rib in front, and below the corresponding point behind, with flatness in the lower half. Over this area breathing vocal and tactile fremitus were everywhere diminished. At the base they were altogether absent. Near the right nipple a friction sound could be heard. The abdomen and extremities showed nothing remarkable. The urine was normal save for a very slight trace of albumin. The haemoglobin was 90%, the white cells 18,500.

On the evening of his first day in the hospital the temperature rose to 104, the respiration to 40. The patient was actively delirious and required restraint.

Diagnosis? Prognosis? Treatment?

PEDIATRICS. — Professor ROTCH

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. David K., eight years old, had the measles when a baby. Since then he has always been well. August 20th he began to complain of a little pain in his lower left chest, which was worse when he ran or played. August 22d he began to have a little cough, which was dry and not accompanied by pain. After the beginning of the cough the pain in the chest ceased, his appetite became poor and he seemed weak and tired. His mother said that he wanted to sit alone by himself instead of playing with the other children. She thought he had been feverish and said that he had sweat profusely at night. He was first seen August 30th.

Physical Examination. — He was well developed and nourished, but somewhat pale. The tongue was moist with a moderate white coat in the centre. The throat was normal. The cardiac impulse was visible in the fourth space in the left parasternal line. The right border of the relative cardiac dullness was about two-thirds of the distance from the right border of the sternum to the right nipple. The upper border of relative cardiac dullness was at the lower border of the second rib. The heart sounds were normal in character, but louder to the right of the sternum than to the left. The second pulmonic sound was considerably louder than the second aortic. The left chest moved somewhat less in respiration than the right. There was dullness in the left back from the spine to the angle of the scapula, below which there was flatness. The whole left axilla was flat. There was dullness in the left front from the upper border of the third rib to the upper border of the fourth rib, below which there was flatness. There was dullness in Traube's space. The respiration was loud and bronchial below the upper level of dullness both in back and in front. The voice sounds were increased, the vocal fremitus diminished. No râles were heard. Above the level of dullness the respiration and voice sounds were normal in character and a few fine moist râles were heard. There was a marked sense of resistance over the dull and flat areas. There was exaggerated vesicular resonance over the whole right chest. The respiration was loud and distinctly puerile. The voice sounds and fremitus were

normal. No extraneous sounds were heard. The upper border of the liver flatness in the nipple line was at the upper border of the seventh rib. The lower border of the liver was palpable 2 cm. below the costal border. The spleen was not palpable. The dulness was not determined because of the dulness in the left chest. The abdomen showed nothing abnormal. The extremities were normal. The temperature was 101.2° F., the pulse 130 and the respiration 48.

(Discuss the above case, giving the differential diagnosis, prognosis, and treatment.)

2. What is the average age at which an infant holds up its head, sits alone, stands alone, and walks alone, giving inferences as to what abnormal conditions might be present if the infant is decidedly backward as to these functions?

3. A baby is taking a home modification of milk prepared as follows :

Top cream (16%) 6 ounces.

Skimmed milk 8 ounces.

(skimmed milk for purposes of calculation is regarded as fat free.)

Lime water 3½ ounces.

Water 14½ ounces.

Milk sugar 2 rounded tablespoonfuls.

(a rounded tablespoonful equals ½ ounce.)

What percentages of fat, sugar, and proteids does this preparation represent? What is the relation of lime water to the milk and cream used? What is the caloric value of the mixture?

4. What are the symptoms which indicate intubation in laryngeal diphtheria?

5. Describe a typical case of intestinal indigestion of the fermental type and give the treatment.

6. What are the indications for lumbar puncture?

Name five common organisms causing meningitis, and describe the essential characteristics of the cerebro-spinal fluid in each of these five forms. Give the indications for the first administration of Flexner's Anti-meningitis Serum and for repeating its administration.

SURGERY. — Professor —

1. Describe the deformity following untreated tuberculous ostitis of the hip joint.
2. Describe a furuncle.
3. Describe actinomycosis of wall of abdomen.
4. Describe a case of anthrax.
5. Symptoms of a cerebral tumor in the frontal lobes.
6. Treatment of varicose veins.
7. Treatment of a stab wound of the heart.
8. Indications for operating for gall stones.
9. Enumerate the causes of peritonitis.
10. Describe a femoral hernia.

CLINICAL SURGERY.—Professor RICHARDSON

1. On January 29, 1910, I first saw Mr. —, aged 25, a law student. He gave me the following history:—

When very small he had pneumonia. Four years ago he had clap, and the discharge lasted perhaps a year. Occasionally he had stomach-aches. In January, 1909, he had stomach-ache with constipation. He felt used up and mean. There was perhaps some diarrhoea. He was in bed a number of days, and had some fever. A doctor saw him, but did not think that there was much wrong. In September, 1909, he had an attack which lasted one day. Castor oil gave some relief. There was slight tenderness over the appendix.

The present attack began January 10, 1910. Just at lunch he felt an ordinary stomach-ache in the epigastrium. He had eaten for breakfast three sausages, cereal, grape-fruit, and cocoa. He had no movement of the bowels that morning. For lunch he had liver and bacon. He went to his room and did some work in spite of the pain, which got worse. It started rather high up. He felt that throwing up or a movement would relieve it. By putting his finger down his throat he started vomiting. That night a student gave him a cathartic. After he went to bed the pain continued in the same place. By that time it was sore low down in the abdomen, but not more on one side than on the other. On January 11th he vomited and then took more castor oil. During that night he woke up with nightmare, which he never has unless he has fever. On January 12th he had a movement at 3 A.M. and another at 4 A.M. The doctor came at half-past four. He hunted for the appendix, but found nothing. He came again at half-past nine, and he then suggested ptomaine poisoning. The stomach-ache was all gone, but the patient felt sore over the lower abdomen and the pelvis. The doctor said that there were no local symptoms. There was some digestive disturbance. The patient was in bed for a week. The abdomen was sore and from time to time he took castor oil. On the 23d he felt all right. On the 25th he had unsatisfactory dejections, with general abdominal discomfort. On January 29th there were two formed movements. There had been no blood from the rectum at any time. At the time of my examination there was no pain. His weight at this time was 132 pounds. His greatest weight had been 140. The patient said that he thought that the urine was more frequent than usual. He does not get up in the night to pass urine. There is no pain in passing it.

The family history was negative. The father's age is 52; the mother's 54. One brother is 29. The patient has two sisters—one 27 and one 13. One paternal aunt died of Bright's disease. There is no consumption in the family.

Physical Examination.—The rectum high up gives to the finger the sense of resistance and infiltration. Back of the prostate, which is soft and small, the bladder is unmistakably thickened. There is a resistant mass to the right of the bladder. The urine is not abnormal.

Discuss, as fully as time permits, the diagnosis, the prognosis, the indications, and contra-indications for operation. If you decide against operation, would you advise any particular course of treatment?

2. A patient, male, 50 years of age (O. R. Vol. 52, p. 83), was operated on March 23d under the diagnosis of multiple stones in the left kidney. The diagnosis was made as positively as it could be made by an expert in

the X-ray, who said that there were two or three calculi high up in the left kidney. At the operation two old, healed, infarcts were found, but no stones. The kidney was thoroughly explored, and in this exploration the capsule of the kidney was very extensively loosened. During a perfectly satisfactory convalescence there was an infarct of the lung, with considerable haemoptysis. About a week afterward there was a second infarct of the lung. With each attack the patient was considerably shocked, although the loss of blood was slight.

What should you say would be the probable outcome in this case?

3. Mrs. E. (Vol. LXVIII, 1), aged 79, a few days ago accidentally discovered a painless lump in the right breast. She at once called a physician who made the diagnosis of cancer, and called the surgeon.

Physical examination showed a small freely movable tumor of the right breast. The skin was not involved. The mass was neither painful nor tender. Enlarged glands were perceptible in the axilla. Nothing abnormal could be felt above the clavicle. The heart, lungs, and kidneys were normal.

The patient for two years had been suffering from mental depression and she was in her general health very feeble. There was a cataract in each eye. The family were opposed to operation. The patient herself did not oppose operation.

- (1) What was the probable diagnosis?
- (2) What was the expectation of life with operation and what without?
- (3) Would you or would you not have advised operation?

OBSTETRICS.—Professor GREEN

1. What changes take place in the musculature of the uterus during the first half of pregnancy?

2. Pernicious vomiting of pregnancy: aetiology, diagnosis, treatment?

3. Describe concisely abdominal palpation of the full-term pregnant abdomen, and state what may be ascertained thereby.

4. What is the normal mechanism of spontaneous delivery in presentations of the head, O. D. P.? What factors are essential to this mechanism?

5. In the absence of one or more of the essential factors of normal mechanism in the above case, what can be done to promote normal mechanism and effect delivery?

6. A multigravida in the thirty-eighth week is awakened in the night by a moderate discharge of blood from the vagina, which soon ceased without other symptoms. Ten days later she was taken in labor, and when seen by her obstetrician was found to be bleeding moderately. The examining finger failed to discover any cause for the haemorrhage, and there was no history of trauma; with the descent of the presenting head the bleeding ceased, the foetal heart was not affected, and labor terminated normally with the birth of a living child. What was the probable cause and what the source of the bleeding; and how could a positive diagnosis be made at the conclusion of the labor?

7. A multigravida in her thirtieth week, after a long automobile drive, is taken in active labor. She is found with normal pelvis to present a small foetus in Sc. D. A. position. The os uteri is one inch dilated, the pains are strong, and the membranes unruptured. Is spontaneous delivery

possible under these conditions? If so, by what mechanism? If, at the end of the first stage, conditions remained unchanged, what should be the further management of the case?

8. A quadrigravida in her sixth month presents this history: first labor, at term, ended with high forceps, baby weighing nine pounds died in four days of intra-cranial haemorrhage; second labor, also at term, ended with podalic version and craniotomy, baby weighing nine and three-fourths pounds; third pregnancy terminated at the thirtieth week by induced labor, baby weighing six pounds born spontaneously, but died in three weeks of inanition. She is now forty years old, in excellent health, and is eager for a living child. Pelvimetry shows the following measures: inter-spinous, 23.5 cm.; inter-cristal, 27 cm.; external conjugate, 18 cm.; estimated c. v., 9 cm.; inter-tubera ischii, 9 cm.; pubic arch normal. In none of her labors have the uterine contractions been of good quality. Discuss your future treatment of this case, and outline any operative procedure you may advise or recommend.

9. After a long labor, terminated with forceps, a puerpera on the evening of the third day has a temperature of 103° F., without immediately obvious cause. How would you proceed in a differential diagnosis? And if by elimination it is thought that there is an infection of the genital tract, how would you establish the diagnosis, and how treat the infection, if found?

10. Outline the care of the lactating breast with the object of preventing mastitis.

GYNAECOLOGY.—Professor GREEN

1. Of what systemic conditions may dysmenorrhoea be a symptom? Outline the treatment you would employ in some one of these conditions.

2. Define retrocession of the uterus, and mention the pathological conditions causing this displacement. What treatment may relieve the symptoms?

3. What pathological changes may ensue from puerperal laceration of the cervix uteri? If a patient declines surgical treatment of this lesion, what local treatment may palliate her symptoms?

4. Acute pelvic peritonitis: definition, pathology, symptoms, and non-surgical treatment?

DERMATOLOGY.—Professor BOWEN

1. Describe a case of impetigo contagiosa and give the treatment.

2. The treatment of a case of infantile eczema.

3. What other affections may be taken for scabies, and how would you differentiate them?

4. *Tinea trichophytina*.

5. *Lupus erythematosus*.

SYPHILIS. — Asst. Professor POST

1. To what extent is the lymphatic system involved in primary syphilis?
2. Describe the serpiginous syphilide.
3. Give some of the effects of syphilis on the bones.
4. In the absence of any eruption on the skin what conditions would make you suspect syphilis in an infant?
5. What is the value of mercury as an antidote to syphilis?

NEUROLOGY. — Professor PUTNAM

1. Indicate the two principal sorts of neuritis and give examples of each.
2. What is the significance of the Babinski reflex (great toe extension reflex)?
3. What changes in the knee-jerk are characteristic of:—
 - (a) Motor hemiplegia (cerebral)?
 - (b) Cerebellar disease?
 - (c) Tabes?
 - (d) Amyotrophic lateral sclerosis?
 - (e) Insular sclerosis?
 - (f) Paraplegia from pressure (as in dorsal Potts' disease)?
 - (g) Poliomyelitis in lumbar region?
 - (h) Alcoholic neuritis?
 - (i) Diphtheritic neuritis?
4. In what different ways does syphilis affect the central nervous system?

Indicate the characteristic symptom of each principal clinical form (not including general paresis and tabes).

PSYCHIATRY. — Dr. COWLES

1. Describe the reflex-arc and the variability of the threshold values in relation to some of the symptoms in the Melancholia-Mania psychoses.
2. Explain the relation of conditions of reduction of functional capacity to the excitatory and inhibitory effects in mental diseases.
3. Describe Imperative Ideas, pointing out the essential elements common to all forms.

4. CASE. — A woman; age 43; widow; housewife; born in England; no heredity; habits good; never any serious illness; always of a jolly disposition; common school education. Married at 18, she was carrying a baby most of the time for 12 years, — had 7 children with 3 miscarriages in intervals, — 4 now living. She worked very hard in outside laundry work, helping to support the family. At age of 31 years, four months after birth of last child, she had an attack of maniacal excitement followed by melancholic sadness; after four months in the Worcester Hospital was discharged perfectly well. Since then, in doing general housework and nursing the sick, she worked night and day, grew thin and very tired; — has always slept well, — appetite good, constipation habitual, — no headaches, — no cardiac or respiratory symptoms. Catamenia always regular,

without pain or excess; but ceased three months before admission to the hospital, — believed it to be the menopause. About a month later she began to be restless and agitated, chiefly at night; has slept poorly for the last six months. She hears voices, thinks that men are after her to harm her and the children, wants to go out to find policeman for protection, fears poison in food, appears suspicious and watchful, wanders about in the night, talks much, threatens suicide by trying to jump out of window.

In Hospital. — Admitted October 23, 1908; second attack. She is a good-sized, well developed woman; physical examination negative, except that the pupils, though equal, are irregular and react slowly to light and distance; knee-jerks, though present and equal, are somewhat over-active; no evidence of syphilis brought out. She shows fear in manner and action; — is confused, — no retardation, but readily responsive to questions, though ideas expressed are digressant, — will not make effort to remember dates, etc. She worries much, especially since her husband's work has kept him from home.

October 29. — Is afraid of things in general, — that something is going to happen, — has hallucinations, — now sleeps fairly well.

October 31. — Growing more restless and apprehensive; walks the floor; wrings her hands; heard threatening voices in the night, — says (in a fearful tone) she "has got to be hung," — cries with fear.

November 19. — An examination was made, of which the following is the clinical report; this with the foregoing history of the case is here condensed.

The patient was bright and very normal in appearance. She talked freely and was clear and accurate in her answers; was oriented, and kept to the point in her account of herself, as follows substantially as she gave it. She had been a hard worker, had lots of trouble, but had tried to make the best of things; she described her first attack and how it differed from the present illness; during the past year she had been tired and worried about everything; was suspicious, fearing that her children and herself would be harmed; thought that people looked at and criticised her. Before coming to the hospital heard voices that threatened her: here she worked about the ward and felt well except her worry; that morning while working and thinking of the children, a certain man who was upstairs told her she was to be beheaded, her husband was in prison, and the Indian would kill the children; she became agitated and cried. On being assured that such things were impossible she brightened up and said she should try to get such thoughts out of her head, and to avoid worry, for it was only at such times that she heard the voices. Nothing else abnormal was noticed; there were no somatic delusions, and she seemed to realize perfectly her condition. She wanted to go home, — the noise of the patients disturbed her, — then she would worry and the voices would come. She said she had worried about the cessation of her periods; but that she had gained weight and felt better every day. In one month of rest in the hospital she had gained in weight and improved rapidly in all other respects.

Give diagnosis of both attacks; compare them as to cause and differences, and suggest explanation of these in the last attack; also give prognosis and treatment.

OPHTHALMOLOGY. — Asst. Professor STANDISH

1. Gonorrhoeal conjunctivitis.
2. Sympathetic ophthalmitis.
3. What ocular conditions occur in (a) diabetes; (b) nephritis?
4. What are the most common refraction conditions in (a) convergent strabismus; (b) divergent strabismus; (c) ocular headache.
5. Give the treatment for a case of trachoma.

OTOLOGY. — Professor BLAKE

1. Describe the mastoid process in the adult, and give its relationship to the middle ear, to the external auditory canal.
2. What is the function of the stapedius muscle?
3. Give the common causes of occlusion of the external auditory canal.
4. Where, and under what condition, would you incise the drum-head for phlebotomy?
5. What are the effects produced in the tympanum, and in the sound transmitting apparatus, by prolonged closure of the tympano-pharyngeal tube?
6. Give the important points in the technic of the simple mastoid operation.

LARYNGOLOGY. — Professor COOLIDGE

1. Describe nasal mucous polypus.
2. The etiology and diagnosis of empyema of the maxillary antrum.
3. Describe the attachment of a faucial tonsil.
4. Describe the pharyngeal follicles of the child and the pharyngeal granules of the adult.
5. Describe the crico-thyroid muscle.
6. The diagnosis and treatment of cancer of the larynx.

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Edwards, Martin Russ, M.D. 1908,	<i>Belleville, Mich.</i>
Kendall, Arthur Isaac, S.B. (<i>Mass. Inst. Tech.</i>) 1900, PH.D. (<i>Johns Hopkins Univ.</i>) 1904,	<i>Somerville.</i>
Marble, Henry Chase, A.B. (<i>Clark Univ.</i>) 1906, M.D. (<i>Harvard Univ.</i>) 1910,	<i>Worcester.</i>
North, Charles Edward, A.B. (<i>Wesleyan Univ.</i>) 1893, M.D. (<i>Columbia Univ.</i>) 1900,	<i>New York, N. Y.</i>
Schorer, Edwin Henry, S.B. (<i>Univ. of Missouri</i>) 1902, M.D. (<i>Johns Hopkins Univ.</i>) 1906,	<i>Plymouth, Wis.</i>
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Clark, William Arthur, A.M. (<i>Univ. of Illinois</i>) 1907,	Urbana, Ill.
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Dulligan, Peter James, A.B. (<i>Holy Cross Coll.</i>) 1907,	Worcester.
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Finnegan, Philip Joseph, A.B. 1908,	Salem.
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Frank, Morris, A.B. 1908 (1907),	Boston.
Fraser, Somers, A.B. 1907,	E. Weymouth.
Gaunt, Frank Peyton, A.B. (<i>Univ. of Missouri</i>) 1906,	St. Louis, Mo.
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* Admitted by special vote of the Administrative Board prior to May 1, 1909.

Hammond, John Wilkes, Jr., A.B. (<i>Dartmouth Coll.</i>) 1907,	Cambridge.
Harris, Herbert Elisha, A.B. (<i>Brown Univ.</i>) 1907,	Providence, R.I.
Harvie, Peter Lyons, A.B. 1908,	Everett, Wash.
Hedblom, Carl Arthur, A.B. (<i>Colorado Coll.</i>) 1907, A.M. (<i>ibid.</i>) 1908,	Aurora, Neb.
Hill, Prescott Tillinghast, A.B. (<i>Brown Univ.</i>) 1906,	Winter Hill.
Hornor, Albert Aurelius, Jr., A.B. (<i>Univ. of Virginia</i>) 1907,	Helena, Ark.
Houghton, James Tilley, A.B. 1908,	Saratoga Springs, N.Y.
Hunt, Robert Bates, A.B. (<i>Clark Univ.</i>) 1907,	Brockton.
*Jones, Ellis William,	Boston.
Joslyn, Arthur Everett, S.B. (<i>Northwestern Univ.</i>) 1903, A.M. (<i>Harvard Univ.</i>) 1899,	Beachmont.
Knowlton, Charles Colby, A.B. (<i>Bowdoin Coll.</i>) 1906,	Ellsworth, Me.
Lamson, Paul Dudley, A.B. 1905,	Worcester.
Lazarus, Louis, A.B. 1906,	Roxbury.
Leland, George Adams, Jr., A.B. 1907,	Boston.
Lincoln, George Chandler, A.B. 1905,	Worcester.
McCann, Charles Daniel, PH.B. (<i>Brown Univ.</i>) 1907,	Brockton.
McCarty, Franklin Bennett, S.B. (<i>Univ. of Notre Dame</i>) 1907,	Lynn.
Marshall, Frank Fremont, A.B. 1907,	Worcester.
Means, James Howard, A.B. 1907,	Boston.
Morrill, Ashley Baker, S.B. 1908,	Concord, N.H.
Murphy, John Joseph, A.B. (<i>Holy Cross Coll.</i>) 1907,	Cambridge.
Nelson, Luther Townsend, A.B. (<i>Boston Univ.</i>) 1905,	Roxbury.
O'Hare, James Patrick, A.B. 1908 (1907),	Milton.
O'Keefe, Edward Scott, A.B. 1907,	Lynn.
Penix, John Harvey, A.B. (<i>William Jewell Coll.</i>) 1906,	Bowling Green, Mo.
Percy, Karlton Goodsell, A.B. (<i>Yale Univ.</i>) 1907,	Brookline.
Perry, Harold Edgar, A.B. 1907,	Brookline.
*Peterson, Hugo Oliver,	Worcester.
Pierce, Glenn McKillips, PH.B. (<i>Westminster Coll.</i>) 1906,	W. Elizabeth, Pa.
Porter, Miles Fuller, Jr., A.B. (<i>Williams Coll.</i>) 1907,	Fort Wayne, Ind.
†Prizer, Edward Levis, A.B. 1908 (1907),	So. Orange, N.J.

* Admitted by special vote of the Administrative Board prior to May 1, 1909.

† A.B. awarded 1907.

Reed, Floyd Orton, S.B. (<i>Univ. of Rochester</i>) 1907,	<i>Berkshire, N. Y.</i>
Reynolds, Ralph Leavitt, A.B. (<i>Colby Coll.</i>) 1906,	<i>Waterville, Me.</i>
Richards, Dexter Newell, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1907,	<i>Gridley, Cal.</i>
Richardson, Russell, A.B. (<i>Princeton Univ.</i>) 1904,	<i>Brookline.</i>
Robinson, Carl Merrill, A.B. (<i>Bowdoin Coll.</i>) 1908,	<i>Portland, Me.</i>
Robinson, Henry Ashton, A.B. 1908,	<i>Hingham.</i>
Sheldon, Russell Firth, A.B. 1907,	<i>Lynn.</i>
Smith, William David, A.B. 1899,	<i>Gardner.</i>
Temple, William Franklin, Jr., A.B. 1908,	<i>Boston.</i>
Thompson, Austin Bassett, A.B. (<i>Williams Coll.</i>) 1907,	<i>Orange, N.J.</i>
Thompson, Victor Veranus, A.B. (<i>Bowdoin Coll.</i>) 1890,	<i>Chelsea.</i>
Tobey, Harold Grant, A.B. (<i>Bowdoin Coll.</i>) 1906,	<i>Clinton.</i>
*Wesselhoeft, Conrad,	<i>Cambridge.</i>
Whidden, Rae Wygant, A.B. 1908,	<i>Portland, Ore.</i>
White, Paul Dudley, A.B. 1908,	<i>Roxbury.</i>

THIRD CLASS

Alcuzar, Isaac, A.B. (<i>Univ. of Wisconsin</i>) 1908,	<i>Boston.</i>
†Alter, Samuel Mitchell, A.B. 1909 (1908),	<i>Los Angeles, Cal.</i>
Baker, Donald Vinton, A.B. 1908,	<i>Roxbury.</i>
Barton, Lyman Guy, Jr., A.B. (<i>Princeton Univ.</i>) 1908,	<i>Willsboro, N. Y.</i>
‡Bauer, Louis Hopewell, A.B. 1909,	<i>Jamaica Plain.</i>
Behlow, William Wallace, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1907,	<i>Redlands, Cal.</i>
Bell, Richard Dana, A.B. 1908,	<i>Somerville.</i>
Binney, George Hayward, Jr., A.B. 1908,	<i>Boston.</i>
Brennan, Daniel Clarke, A.B. 1907,	<i>Cambridge.</i>
§Bruce, Jacob Baldwin, Jr., S.B. 1910,	<i>Allston.</i>
‡Coffin, Whitman King, A.B. 1909,	<i>W. Medford.</i>
Coller, Frederick Amasa, S.M. (<i>So. Dakota State Coll.</i>) 1908,	<i>Los Angeles, Cal.</i>
Crabtree, Ernest Granville, PH.B. (<i>Univ. of Wooster</i>) 1906,	<i>Zanesville, O.</i>

* Admitted by special vote of the Administrative Board prior to May 1, 1909.

† A.B. awarded 1908.

‡ Admitted 1908 with work in Harvard College for degree completed.

§ S.B. awarded 1910 as of Class of 1908.

- Donovan, Joseph Aloysius, A.B. (*Bates Coll.*) 1908, *Houlton, Me.*
- Elliott, Malcolm Robertson, A.B. (*Acadia Univ.*) 1908, *Clarence, N.S.*
- Farnsworth, Earle Edwin, A.B. (*Cornell Univ.*) 1903, *Grand Island, Neb.*
- Grady, Thomas Francis, A.B. (*Holy Cross Coll.*) 1908, *Clinton.*
- Hackett, Lewis Wendell, A.B. 1905, *Belmont, Cal.*
- Hersam, Norman Paul, S.B. (*Univ. of California*) 1908, *Stoneham.*
- Hinton, William Augustus, S.B. 1905, *Kansas City, Kan.*
- Knowlton, Don Jerome, A.B. 1908, *Brookline.*
- Lacey, Walter Maurice, A.B. (*Williams Coll.*) 1908, *Cheyenne, Wyoming.*
- Look, Percy Jonathan, A.B. (*Boston Univ.*) 1908, *Farmington, Me.*
- Lyman, Henry, A.B. 1901, *Boston.*
- Meyers, Alfred Edward, A.B. (*Leland Stanford Jr. Univ.*) 1907, *Spokane, Wash.*
- Miller, Alvah Strong, A.B. (*Univ. of Rochester*) 1907, *Rochester, N. Y.*
- Miller, Edwin Lee, A.B. (*Univ. of Missouri*) 1908, *Norborne, Mo.*
- Minot, George Richards, A.B. 1908, *Boston.*
- *Morse, Sterne, *Brookline.*
- †Murphy, Joseph Leroy, A.B. 1909, *Taunton.*
- O'Shea, William Michael, A.B. (*Gonzaga Coll.*) 1907, *Spokane, Wash.*
- *Perlstein, Isidor, *St. Louis, Mo.*
- Porter, Donald Wallace, A.B. (*Yale Univ.*) 1908, *New Haven, Conn.*
- Pratt, Ezekiel, A.B. 1909, *Cohasset.*
- †Rackemann, Francis Minot, A.B. 1909, *Readville.*
- Ramsey, Wayne Stevenson, A.B. (*Washington and Jefferson Coll.*) 1908, *Coraopolis, Pa.*
- Reggio, André William, A.B. 1908, *Boston.*
- *Rockey, Eugene Watson, *Portland, Ore.*
- Rogers, Orville Forrest, Jr., A.B. 1908, *Dorchester.*
- Rounsefell, Clifford George, A.B. 1907, *Cambridge.*
- Smillie, Wilson George, A.B. (*Colorado Coll.*) 1908, *Eaton, Colo.*
- Talbot, John Edward, A.B. 1902, LL.B. 1905, *Holliston.*
- Thomas, Charles Francis, Jr., A.B. (*Bowdoin Coll.*) 1907, *Caribou, Me.*
- Tribou, Howard Arthur, S.B. (*Colby Coll.*) 1908, *Rockport, Me.*

* Admitted by special vote of the Administrative Board prior to May 1, 1909.

† Admitted 1908 with work in Harvard College for degree completed.

† Wilson, Philip Duncan, A.B. 1909,	<i>Columbus, O.</i>
Woody, MacIver, A.B. (<i>Richmond Coll.</i>) 1905,	
A.B. (<i>Harvard Univ.</i>) 1907,	<i>Louisville, Ky.</i>

SECOND CLASS

Amoss, Harold Lindsay, S.B. (<i>State Univ. of Kentucky</i>) 1905, S.M. (<i>ibid.</i>) 1907,	<i>Cobb, Ky.</i>
Blake, Francis Gilman, A.B. (<i>Dartmouth Coll.</i>) 1908,	<i>Brookline.</i>
Borden, Russell Potter, A.B. (<i>Mt. Allison Coll.</i>) 1908,	<i>Lower Canard, N.S.</i>
Brown, Herbert Rutherford, S.B. (<i>Univ. of Rochester</i>) 1901,	<i>Jamaica Plain.</i>
Buffum, William Potter, Jr., A.B. (<i>Brown Univ.</i>) 1909,	<i>Newport, R.I.</i>
Carter, James Charles, A.B. (<i>De Pauw Univ.</i>) 1909,	<i>Shelbyville, Ind.</i>
Clark, DeWitt Scoville, Jr., A.B. (<i>Yale Univ.</i>) 1909,	<i>Salem.</i>
Cobb, Stephen Aratas, Jr., A.B. (<i>Bates Coll.</i>) 1909,	<i>Gardiner, Me.</i>
Cole, Norman Brown, A.B. 1909,	<i>Newport, R.I.</i>
Cunningham, Allan Rowe, A.B. 1909,	<i>Gloucester.</i>
Curtis, Charles Samuel, A.B. (<i>Clark Univ.</i>) 1909,	<i>Spencer.</i>
Cutler, Elliott Carr, A.B. 1909,	<i>Brookline.</i>
Davidson, Douglas Treat, A.B. (<i>Yale Univ.</i>) 1909,	<i>Warren, Pa.</i>
Denny, George Parkman, A.B. 1909,	<i>Chestnut Hill.</i>
†† Dolan, William Francis, A.B. 1910,	<i>Somerville.</i>
Faulkner, James Francis, A.B. (<i>Bates Coll.</i>) 1908,	<i>Gardiner, Me.</i>
Favill, John, A.B. (<i>Yale Univ.</i>) 1909,	<i>Chicago, Ill.</i>
†† Ferguson, Luther Mitchell, A.B. 1910,	<i>Newton.</i>
Frost, Harold Maurice, A.B. (<i>Brown Univ.</i>) 1909,	<i>Tiverton, R.I.</i>
Gilchrist, John Milton, S.B. (<i>Cornell Coll.</i>) 1909,	<i>Waukon, Ia.</i>
Goodwin, Harold Merle, A.B. (<i>Bates Coll.</i>) 1908,	<i>Lincoln, Me.</i>
Goodwin, Ralph Augustus, A.B. (<i>Bates Coll.</i>) 1908,	<i>Lincoln, Me.</i>
Greene, Jeremiah Augustine, A.B. 1909,	<i>Cambridge.</i>
Grinnell, Francis Browne, A.B. 1909,	<i>New Bedford.</i>
† Hill, Lewis Webb, A.B. 1910 (1909),	<i>Jamaica Plain.</i>

† A.B. awarded 1909.

† Admitted 1908 with work in Harvard College for degree completed.

†† Admitted 1909 with work in Harvard College for degree completed.

Hull, Ira Butler, A.B. (<i>Bates Coll.</i>) 1908,	<i>Lewiston, Me.</i>
Jacobs, Irving William, A.B. 1909,	<i>Boston.</i>
Kilgore, Alson Raphael, S.B. (<i>Univ. of California</i>) 1909,	<i>Fruitvale, Cal.</i>
Krout, Boyd Merrill, PH.B. (<i>Ohio Univ.</i>) 1909,	<i>Dresden, O.</i>
Krusen, Francis Twining, A.B. (<i>Ursinus Coll.</i>) 1909,	<i>Norristown, Pa.</i>
Lavelle, Thomas Eugene, A.B. (<i>Georgetown Univ.</i>) 1909,	<i>Butte, Mont.</i>
Lennox, William Gordon, A.B. (<i>Colorado Coll.</i>) 1909,	<i>Colorado Springs, Colo.</i>
Leonard, Edward DeWitt, A.B. (<i>Amherst Coll.</i>) 1909,	<i>Brattleboro, Vt.</i>
Lieb, Clarence William, A.B. (<i>Colorado Coll.</i>) 1908, A.M. (<i>ibid.</i>) 1909,	<i>Manzanola, Colo.</i>
Liu, Jui Heng, S.B. 1909,	<i>Tientsin, China.</i>
MacKnight, William Frank, A.B. (<i>Holy Cross Coll.</i>) 1908,	<i>Fall River.</i>
††Morrison, William Reid, A.B. 1910,	<i>E. Boston.</i>
Parker, Raymond Brewer, S.B. (<i>Dartmouth Coll.</i>) 1908,	<i>Reading.</i>
*Pattajo, Christ. Alexander,	<i>Roxbury.</i>
Pierson, Philip Hale, A.B. (<i>Yale Univ.</i>) 1908,	<i>Wellesley Hills.</i>
Rupp, Roger Ralph, S.B. (<i>Muhlenberg Coll.</i>) 1909,	<i>Lehigh, Pa.</i>
Shain, Abraham Isidor, A.B. 1909,	<i>Roxbury.</i>
††Shapira, Albert Abraham, S.B. 1910,	<i>Boston.</i>
Sheehan, Edward Bernard, A.B. (<i>Boston Coll.</i>) 1909,	<i>Roxbury.</i>
Strong, Seth Lake, A.B. (<i>Oberlin Coll.</i>) 1909,	<i>Boston.</i>
Ten Broeck, Carlon, A.B. (<i>Univ. of Illinois</i>) 1908,	<i>Parsons, Kan.</i>
Terrall, John Jay, S.B. (<i>Cornell Coll.</i>) 1907,	<i>Hudson, Ia.</i>
Van Meter, Abram Lee, A.B. (<i>Univ. of Kansas</i>) 1909,	<i>Parsons, Kan.</i>
Walker, Melvin Harvey, Jr., A.B. (<i>Yale Univ.</i>) 1909,	<i>Westboro.</i>
Warren, Charles Fletcher, PH.B. (<i>Brown Univ.</i>) 1909,	<i>Auburn, R.I.</i>
Webber, Wolfert Gerson, A.B. 1909,	<i>Boston.</i>
Wentworth, Edward Tubbs, A.B. 1909,	<i>Batavia, N.Y.</i>
Wentworth, John Alexander, A.B. (<i>Bowdoin Coll.</i>) 1909,	<i>Portland, Me.</i>
Wickham, Thomas William, A.B. (<i>Holy Cross Coll.</i>) 1909,	<i>South Lee.</i>

* Admitted by special vote of the Administrative Board prior to May 1, 1909.

†† Admitted 1909 with work in Harvard College for degree completed.

FIRST CLASS

Albee, Kenneth Field, PH.B. (<i>Brown Univ.</i>) 1910,	Wollaston.
Alton, Benjamin Harrison, S.B. (<i>So. Dakota State Coll.</i>) 1908, S.M. (<i>ibid.</i>) 1910,	Brookings, So. Dak.
Andrews, Sumner Cheever, A.B. 1910,	Gloucester.
|| Aub, Joseph Charles (<i>Harvard</i>),	Cincinnati, O.
Bachman, George Warren, A.B. 1908,	Wilkes Barre, Pa.
Beard, Archibald Hildreth, A.B. (<i>Kansas Univ.</i>) 1910,	La Junta, Colo.
Bill, José Penteado, A.B. (<i>Dickinson Coll.</i>) 1907,	Harrisburg, Pa.
Binger, Carl Alred Lanning, A.B. 1910,	Boston.
Bowes, Frank Arthur, A.B. (<i>Holy Cross Coll.</i>) 1910,	Waterbury, Conn.
Brett, Apley Leonel, A.B. (<i>Brown Univ.</i>) 1910,	So. Braintree.
Brown, James Howard, S.B. (<i>Illinois Coll.</i>) 1906, S.M. (<i>Univ. of Illinois</i>) 1909,	Jacksonville, Ill.
Burpee, Benjamin Prescott, A.B. (<i>Dartmouth Coll.</i>) 1909,	Manchester, N. H.
Burton, Caspar Henry, Jr., A.B. 1909,	Cincinnati, O.
† Caro, Heiman, A.B. 1911 (1910),	Chelsea.
Cheever, Austin Walter, A.B. 1910,	Mattapan.
Clancy, William James, A.B. (<i>Holy Cross Coll.</i>) 1910,	Milford.
Cobb, Stanley, A.B. 1910,	Milton.
Cohen, Joseph Powitzer, A.B. 1909,	Newburgh, N. Y.
Cragin, Horace Stuart, S.B. (<i>Amherst Coll.</i>) 1910,	Brooklyn, N. Y.
Diepenbrock, Anthony Bernard, A.B. (<i>Santa Clara Coll.</i>) 1908,	Sacramento, Cal.
Donovan, Jeremiah John, A.B. (<i>Boston Coll.</i>) 1900,	Randolph.
Downs, Chester Arthur, A.B. (<i>Univ. of Oregon</i>) 1910,	Portland, Ore.
Fay, William James, A.B. (<i>Clark Univ.</i>) 1910,	Worcester.
Fernández, Miguel Joaquin, A.B. (<i>Colegio Pinillos, Colombia, S.A.</i>) 1907,	Mompox, Colombia, S.A.
Fiske, Cyrus Hartwell, A.B. (<i>Univ. of Minnesota</i>) 1910,	St. Paul, Minn.
Fornell, Carl Hernrid, A.B. 1910,	Quincy.
Foster, Thomas Albert, A.B. (<i>Dartmouth Coll.</i>) 1910,	Portland, Me.

† A.B. awarded 1910.

|| Has completed work in Harvard College for the A.B. degree.

- Gillette, George Henry, A.B. (*Cornell Coll.*) 1910, *Bayport, N. Y.*
 Gosline, Harold Inman, A.B. 1909, *Worcester.*
 Gray, Horace, A.B. 1909, *Boston.*
 ||Green, Hyman (*Harvard*), *Boston.*
 †Hanchett, Alsoberry Kaumu, A.B. 1911 (1910), *Waimea, Hawaii.*
 Helie, Euclid, A.B. (*McMaster Univ.*) 1905, A.M. (*Clark Univ.*) 1908, *Worcester.*
 Hill, Frederick Thayer, S.B. (*Colby Coll.*) 1910, *Waterville, Me.*
 Howard, Herbert Handy, S.B. (*Tufts Coll.*) 1909, *Somerville.*
 Hyde, Harold Valmore, S.B. (*Dartmouth Coll.*) 1910, *Lynn.*
 ||Johnson, Harold Bartlett (*Harvard*), *Cattaraugus, N. Y.*
 Kaiser, Albert David, S.B. (*Univ. of Rochester*) 1909, *Rochester, N. Y.*
 ††Kibby, Sydney Vernon, A.B. 1908 (1907), *Everett.*
 Leavitt, Peirce Henry, S.B. 1910, *Cambridge.*
 Lehman, Edwin Partridge, A.B. (*Williams Coll.*) 1910, *Redlands, Cal.*
 ||Levine, Samuel Albert (*Harvard*), *Roxbury.*
 Louis, Lawrence Joseph, Jr., A.B. (*Holy Cross Coll.*) 1910, *Newport, R. I.*
 Lunt, Lawrence Kirby, A.B. 1909, *Colorado Springs, Colo.*
 Lurier, Israel, A.B. (*Clark Univ.*) 1910, *Worcester.*
 McMahon, William Edward Roche, A.B. (*Holy Cross Coll.*) 1910, *Worcester.*
 ||Marvin, Frank William (*Harvard*), *Cambridge.*
 ||Meriam, Horatio Cook, Jr. (*Harvard*), *Salem.*
 Millet, John Alfred Parsons, A.B. 1910, *New York, N. Y.*
 Montgomery, Orland Franklin, A.B. (*Leland Stanford Jr. Univ.*) 1910, *Tulare, Cal.*
 Moor, Henry Britt, S.B. (*Colby Coll.*) 1910, *Waterville, Me.*
 Morrison, Wayland Augustus, A.B. (*Leland Stanford Jr. Univ.*) 1910, *Los Angeles, Cal.*
 Morrissey, John Henry, Jr., A.B. (*Brown Univ.*) 1910, *Bristol, R. I.*
 §§Munro, Donald (*Harvard*), *Boston.*
 ||Neves, Charles Serpa (*Harvard*), *Providence, R. I.*
 New, Way-sung, A.B. (*St. John's Coll.*) 1910, *Shanghai, China.*
 ||Nigro, Michele (*Harvard*), *Revere.*
 Ohler, William Richard, S.B. 1910, *Bethel, Conn.*

† A.B. awarded 1910.

†† A.B. awarded 1907.

|| Has completed work in Harvard College for the A.B. degree.

§§ Admitted October, 1910, as Harvard College Senior, on leave of absence.

Papas, Prodromos Nicholas, A.B. (<i>Anatolia Coll.</i>) 1907,	<i>Angora, Turkey.</i>
Richards, Maurice O'Neil, A.B. 1910,	<i>Portsmouth, N.H.</i>
Richardson, Henry Barber, A.B. 1910,	<i>Boston.</i>
Ricker, Charles Sherwood, A.B. 1908, A.M. 1909,	<i>Cambridge.</i>
Robbins, Elmer Ellsworth, Jr., A.B. 1910,	<i>New Bedford.</i>
Rochford, Richard Augustine, A.B. (<i>Holy Cross Coll.</i>) 1910,	<i>Newton Lower Falls.</i>
Root, Raymond Richmond, S.B. (<i>Dartmouth Coll.</i>) 1905,	<i>Dorchester.</i>
Schofield, Roger William, A.B. (<i>Clark Univ.</i>) 1910,	<i>Worcester.</i>
Sharry, Charles Francis, A.B. 1910,	<i>Somerville.</i>
Shohl, Alfred Theodore, A.B. 1910,	<i>Cincinnati, O.</i>
§Sisonsky, Michael (<i>Harvard</i>),	<i>E. Boston.</i>
Solomon, Harry Caesar, S.B. (<i>Univ. of California</i>) 1910,	<i>Los Angeles, Cal.</i>
Sweeney, Edward Flagg, A.B. (<i>Holy Cross Coll.</i>) 1910,	<i>Somerville.</i>
Vernlund, Carl Frithiof, S.B. (<i>So. Dakota State Coll.</i>) 1909,	<i>Jungskola, Sweden.</i>
Washburn, Arthur Lawrence, A.B. 1910,	<i>New York, N. Y.</i>
Winchester, Harold Eugene, S.B. (<i>Dartmouth Coll.</i>) 1910,	<i>Bismarck, No. Dak.</i>
Withington, Paul, A.B. 1909,	<i>Honolulu, Hawaii.</i>
Wright, Wade Stanley, S.B. (<i>Univ. of Pittsburg</i>) 1910,	<i>Pittsburg, Pa.</i>

SPECIAL STUDENTS TAKING REGULAR WORK**

Benet, George,	<i>Columbia, S.C.</i>
Fortner, Edgar Sidney, A.B. (<i>Missouri State Univ.</i>) 1910,	<i>Plano, Tex.</i>
Grisier, Otto Woodson, A.B. (<i>Indiana Univ.</i>) 1910,	<i>Columbia City, Ind.</i>
Konrad, Frank Charles William, S.B. (<i>Univ. of Wisconsin</i>) 1910,	<i>Oshkosh, Wis.</i>
Meserve, Edwin Alonzo,	<i>Allston.</i>
Tearnan, Clyde Hadrian, S.B. (<i>Univ. of Wisconsin</i>) 1910,	<i>Marshfield, Wis.</i>
Tearnan, Raymond Arthur, S.B. (<i>Univ. of Wisconsin</i>) 1910,	<i>Marshfield, Wis.</i>

§ Admitted October, 1909, as Harvard College Senior, on leave of absence.

** Students admitted under requirement on page 19, paragraph 2.

COURSES FOR GRADUATES

(October 1, 1909, to June 1, 1910)

- Allen, Frederick Madison, A.B. (*Univ. of California*) 1902, M.D. (*ibid.*) 1907, Pomona, Cal.
- Bagnall, Arthur Wallace, M.D. (*Tufts Med. Sch.*) 1906, Kaslo, Can.
- Bailey, George Guy, PH.G. (*Mass. Coll. of Pharm.*) 1888, M.D. (*Harvard Univ.*) 1892, Ipswich.
- Bailey, Walter Channing, A.B. 1894, M.D. 1898, Boston.
- Baker, Benjamin Ward, M.D. (*Dartmouth Med. Sch.*) 1898, Manchester, N.H.
- Balch, Marion Casares, A.B. (*Bryn Mawr Coll.*) 1902, Jamaica Plain.
- Barry, Emmett William, M.D. (*Coll. of Phys. and Surg., Baltimore*) 1897, Whitinsville.
- Beach, Sylvester Judd, A.B. 1901, M.D. 1905, Augusta, Me.
- Beasley, Edward Bailey, A.B. (*Johns Hopkins Univ.*) 1902, M.D. (*ibid.*) 1906, Baltimore, Md.
- Bigelow, Frederick Nolton, M.D. (*Univ. of Michigan*) 1907, Davisburg, Mich.
- Blake, Thomas Barnard, Palo Alto, Cal.
- Boardman, William Sydney, A.B. (*Amherst Coll.*) 1881, A.M. (*ibid.*) 1886, M.D. (*Harvard Univ.*) 1886, Boston.
- Bowditch, Henry Ingersoll, A.B. 1891, M.D. 1902, Boston.
- Brooks, Herbert Thomas, A.B. (*Presbyterian Coll., S.C.*) 1901, M.D. (*Univ. of Nashville*) 1906, Nashville, Tenn.
- Bryant, John Edmund, M.D. (*Dartmouth Med. Sch.*) 1901, Haverhill.
- Caldbeck, Samuel L, M.D. (*Saginaw Valley Med. Coll.*) 1902, Volin, So. Dak.
- Calkin, Barry Hawes, M.D., C.M. (*McGill Univ.*) 1891, Jamaica Plain.
- Carbone, Giovanni, M.D. (*Univ. of Naples*) 1892, Boston.
- Clark, Edward James, M.D. (*Dartmouth Med. Sch.*) 1901, Lowell.
- Coffin, Frank Herbert, PH.G. (*Mass. Coll. of Pharm.*) 1894, M.D. (*Boston Univ. Sch. of Med.*) 1900, Haverhill.
- Conro, Arthur Clifton, A.B. (*Harvard Univ.*) 1893, M.D. (*Chattanooga Med. Sch.*) 1901, Waltham.
- Curry, Edmund Farnham, M.D. 1896, Fall River.
- Daly, Timothy Joseph, M.D. 1897, Lawrence.

- Delahanty, William Joseph, M.D. (*Dartmouth Med. Sch.*) 1883, Worcester.
- Dolan, William Edward, M.D. (*Baltimore Med. Coll.*) 1902, Worcester.
- Douglas, Henry Rhea, M.D. (*Univ. of Pennsylvania*) 1902, Newville, Pa.
- Dupras, Joseph Elzaar, M.D. (*Laval Univ.*) 1905, St. Prosper, Can.
- Ely, Theodore Williams, PH.B. (*Yale Univ.*) 1905, M.D. (*Western Reserve Univ.*) 1909, Cleveland, O.
- Fitzgerald, Thomas Patrick, A.B. (*Boston Coll.*) 1893, M.D. (*Harvard Univ.*) 1897, Brighton.
- Fleischer, Meyer Springer, B.S. (*Univ. of Pennsylvania*) 1904, M.D. (*ibid.*) 1907, Overbrook, Pa.
- Foster, Harry Emerson, M.D. (*Univ. of California*) 1909, Oakland, Cal.
- French, Charles Ephraim, M.D. (*Univ. of Maryland*) 1893, Lowell.
- Furlong, Francis Mohun, M.D. (*Univ. of Georgetown*) 1895, Washington, D.C.
- Gallivan, William Joseph, A.B. 1888, M.D. 1892, So. Boston.
- Gleason, Alson Herbert, Somers, Conn.
- Godfrey, Henry White, A.B. 1902, M.D. 1906, Auburndale.
- Goss, Francis Webster, A.B. 1862, M.D. 1869, Roxbury.
- Granger, Karle Henry, S.B. (*Iowa State Coll.*) 1888, M.D. (*Dartmouth Med. Sch.*) 1892, So. Weymouth.
- Hall, Gardner Wells, A.B. (*Harvard Univ.*) 1898, Boston.
- M.D. (*Johns Hopkins Univ.*) 1901, Boston.
- Hartwell, Harry Fairbanks, A.B. 1895, M.D. 1898, Providence, R.I.
- Harvey, Norman Darrell, M.D. (*Columbia Coll.*) 1888, Portland, Me.
- Haskell, Alfred William, M.D. (*Med. Sch. of Maine*) 1900, Pepperell.
- Heald, Charles Gerry, M.D. (*Univ. and Bellevue Hosp. Med. Coll.*) 1899, Pawtucket, R.I.
- Hess, Peter William, M.D. 1901, So. Natick.
- Hills, Charles Everett, M.D. (*Dartmouth Med. Sch.*) 1901, Boston.
- Homans, John, A.B. 1899, M.D. 1903, Newton Centre.
- Homer, Harriett, M.D. (*Boston Univ. Sch. of Med.*) 1903, Brookline.
- Hornbrook, Francis Wheeler, PH.B. (*De Pauw Univ.*) 1899, M.D. (*Harvard Univ.*) 1905, Georgetown.
- Hoyt, Edward Malcom, M.D. 1883, Boston.
- Hurley, Edward Daniel, M.D. 1904, Washington, D.C.
- Jones, Edward Barton, M.D. (*George Washington Univ.*) 1902,

- Kepler, Charles Ober, A.M. (*Baldwin Univ.*)
1890, S.T.B. (*Boston Univ.*) 1892, M.D. (*Harvard Univ.*) 1899,
Boston.
- Killeen, John Joseph, M.D. (*Coll. of Phys. and Surg., Ill.*) 1905,
Chicago, Ill.
- Kimball, Harry Waldo, M.D. (*Med. Sch. of Maine*)
1891,
Providence, R.I.
- Kincaid, Robert John, M.D. (*Med. Sch. of Maine*)
1894,
Mars Hill, Me.
- Knowles, Robert Keneborough Black, A.B. (*Acadia Coll.*) 1897, M.D. (*Harvard Univ.*) 1902,
Gloucester.
- Langley, Orlando Velpeau, M.D. (*Baltimore Med. Sch.*) 1893,
Camp Hill, Ala.
- Lantz, Ida Rebekah, M.D. (*Northwestern Univ.*)
1902,
Oak Park, Ill.
- Learmonth, George Everett, A.B. (*McGill Univ.*)
1899, M.D., C.M. (*ibid.*) 1901,
High River, Can.
- Liebman, William, M.D. (*Yale Univ.*) 1905,
Lynn.
- Litchfield, William Harvey, M.D. 1882,
Brookline.
- Livingston, Clarence Bertram, M.D. (*Baltimore Med. Coll.*) 1903,
Lowell.
- McCullough, Edward Aloysius, A.B. (*Med. Sch. of Maine*) 1890, M.D. (*Harvard Univ.*) 1894,
Worcester.
- McIntire, Frederic Joseph, M.D. (*Tufts Med. Sch.*) 1907,
Lynn.
- McIntosh, Herbert, A.B. (*Brown Univ.*) 1882,
A.M. (*ibid.*) 1885, M.D. (*Univ. and Bellevue Hosp. Med. Coll.*) 1896,
Brookline.
- MacKay, William, M.D., C.M. (*Dalhousie Univ.*)
1902,
Somerville.
- McKoan, John William, M.D. 1894,
Worcester.
- McNamara, John James, M.D. (*Tufts Med. Sch.*)
1900,
Brockton.
- Manko, Emanuel, PH.G. (*Philadelphia Coll. of Pharm.*) 1895, M.D. (*Univ. Med. Coll.*) 1905,
Kansas City, Mo.
- Mathews, George Stitzel, A.B. (*Brown Univ.*)
1885, M.D. (*Univ. of Pennsylvania*) 1888,
Providence, R.I.
- May, George Elisha, M.D. (*Boston Univ. Sch. of Med.*) 1890,
Newton Centre.
- Mays, Arthur Hugh, M.D. (*Univ. of California*)
1888,
Sausalito, Cal.
- Mavor, James Watt, B.A. (*Cambridge Univ.*) 1905,
Cambridge.
- Menzies, John Edmunson, M.D. (*McGill Univ.*)
1902,
Providence, R.I.
- Merrill, George Frank, M.D. (*Med. Sch. of Maine*)
1876,
Kennebunkport, Me.
- Milliken, Howard Augustus, A.B. (*Med. Sch. of Maine*) 1896, M.D. (*McGill Univ.*) 1898,
Hallowell, Me.

- Moody, Harry Alton, M.D. (*Med. Sch. of Maine*) 1903, *Sanbornville, N.H.*
- Morris, James Stewart, M.D. 1887, *Revere.*
- Morse, George W, A.B. 1905, M.D. 1908, *Clinton.*
- Mulherin, William Anthony, A.M. (*Spring Hill Coll.*) 1900, M.D. (*Harvard Univ.*) 1901, *Augusta, Ga.*
- O'Day, George Frederick, A.B. (*Holy Cross Coll.*) 1896, M.D. (*Harvard Univ.*) 1901, *Worcester.*
- O'Donnell, George Thomas, *No. Billerica.*
- O'Meara, John George, M.D. (*Univ. of Pennsylvania*) 1899, *Providence, R.I.*
- Osgood, Gardner Holway, M.D. (*Boston Univ. Sch. of Med.*) 1909, *Boston.*
- Phelan, Edward Francis, M.D. (*Univ. of Vermont*) 1909, *Ludlow, Vt.*
- Peters, Amos William, B.L. (*Western Reserve Univ.*) 1897, A.M. (*Harvard Univ.*) 1901, PH.D. (*ibid.*) 1903, *Brookline.*
- Porter, Lewis Beers, M.D. (*Yale Univ.*) 1898, *Providence, R.I.*
- Pritchard, William Percival, M.D. 1900, *Fall River.*
- Ranney, Eugene Oliver, M.D. (*Coll. of City of New York*) 1866, M.D. (*Long Island Coll. Hosp.*) 1889, *Orleans Barton, Vt.*
- Reeves, Marcellus, M.D. 1890, *Boston.*
- Reid, William Bradley, M.D. (*Syracuse Univ. Med. Coll.*) 1896, *Rome, N. Y.*
- Seymour, Malcolm, M.D. 1904, *Boston.*
- Shanahan, John, M.D. (*New York Univ.*) 1881, *Peabody.*
- Shenudah, Selim, *Senoures Fayoum, Egypt.*
- Smith, Frank Herbert, M.D. (*Univ. of Pennsylvania*) 1898, *Hadley.*
- Stanton, Joseph, PH.G. (*Mass. Coll. of Pharm.*) 1899, M.D. (*Harvard Univ.*) 1903, *Newton.*
- Sylvester, Charles Bradford, M.D. (*Med. Sch. of Maine*) 1889, *Harrison, Me.*
- Sylvester, Charles Porter, M.D. (*Univ. of Vermont*) 1899, *Dorchester.*
- Talbot, Fritz Bradley, A.B. 1900, M.D. 1905, *Boston.*
- Ten Broeck, Carlon, A.B. (*Univ. of Illinois*) 1908, *Parsons, Kan.*
- Tenney, William Northend, M.D. 1895, *Canton.*
- Tenny, Elmer Seth, B.L. (*Dartmouth Coll*) 1894, M.D. (*ibid.*) 1897, *Boston.*
- Turner, Abby Howe, B.A. (*Mt. Holyoke Coll.*) 1896, *So. Hadley.*
- Tuttle, Vine Hall, M.D. (*Indiana Med. Coll.*) 1894, *Orwell, O.*
- Van Dalsem, William Stoddard, M.D. (*Chicago Homeopathic Med. Coll.*) 1897, *San José, Cal.*

- Van Meter, Abram Lee, A.B. (*Univ. of Kansas*)
1909, *Parsons, Kan.*
- Wagner, Harry Samuel, PH.B. (*Denison Univ.*)
1899, M.D. (*Univ. of Michigan*) 1903, *Toledo, O.*
- Walker, Arthur William, *Roslindale.*
- Walker, Isaac Chandler, A.B. (*Johns Hopkins Univ.*) 1905, M.D. (*ibid.*) 1909, *Portland, Me.*
- Wentworth, Arthur Howard, M.D. 1891, *Boston.*
- Weston, William, M.D. (*Med. Coll. of South Carolina*) 1896, *Columbia, S.C.*

THE SUMMER SCHOOL OF MEDICINE

(June 1 to October 1, 1910)

Aldrich, Walter Johnson, M.D. (<i>Bellevue Hosp. Med. Coll.</i>) 1893,	<i>St. Johnsbury, Vt.</i>
Andrews, Charles James, M.D. (<i>Med. Coll. of Virginia</i>) 1902,	<i>Norfolk, Va.</i>
Bacher, Johann Adolph, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1899,	<i>San José, Cal.</i>
Bailey, Charles Hervey, A.B. (<i>Brown Univ.</i>) 1903, M.D. (<i>Harvard Univ.</i>) 1910,	<i>Dorchester.</i>
Baker, Walter Eugene, M.D. (<i>Drake Univ. Med. Coll.</i>) 1907,	<i>Des Moines, Ia.</i>
Bassett, Alice Haley, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1898,	<i>Boston.</i>
Bauer, Louis Hopewell, A.B. 1909,	<i>Jamaica Plain.</i>
Bebb, Rose Anne, B.L. (<i>Univ. of Minnesota</i>) 1891, M.D. (<i>ibid.</i>) 1897,	<i>Seattle, Wash.</i>
Bedrossian, Edward Hagop, A.B. (<i>Anatolia Coll.</i>) 1904,	<i>Marsovan, Turkey.</i>
Begg, Alexander Swanson, M.D. (<i>Drake Univ. Med. Coll.</i>) 1907,	<i>Des Moines, Ia.</i>
Belknap, James Lyman, S.B. (<i>Dartmouth Coll.</i>) 1898, M.D. (<i>Harvard Univ.</i>) 1902,	<i>Andover.</i>
Bell, Richard Dana, A.B. 1908,	<i>Somerville.</i>
Binney, George Hayward, Jr., A.B. 1908,	<i>Boston.</i>
Bixby, Oliver Edward, M.D. (<i>Univ. of Vermont Coll. of Med.</i>) 1908,	<i>Saugus.</i>
Blake, Thomas Bernard,	<i>Palo Alto, Cal.</i>
Boardman, William Parsons, A.B. 1902, M.D. 1905,	<i>Boston.</i>
Boyce, John William, M.D. (<i>Univ. of Pittsburg Med. Dept.</i>) 1892,	<i>Pittsburg, Pa.</i>
Brennan, John Joseph, M.D. 1886,	<i>Worcester.</i>
Brooks, Herbert Thomas, A.B. (<i>Presbyterian Coll., S.C.</i>) 1901, M.D. (<i>Med. Dept., Univ. of Nashville</i>) 1906,	<i>Nashville, Tenn.</i>
Brownson, William Clarence, M.D. (<i>Univ. of New York</i>) 1876,	<i>Asheville, N.C.</i>
Burnett, Francis Lowell, S.B. 1902, M.D. 1906,	<i>Northampton.</i>
Burnett, Henry Winans, M.D. (<i>Long Island Coll. Hosp.</i>) 1897,	<i>Providence, R.I.</i>
Burt, Clarence Edward, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1908,	<i>New Bedford.</i>

- Bush, Guy Lawton, M.D. (*Atlanta Coll. of Phys. and Surg.*) 1908, *Atlanta, Ga.*
 Carroll, Harry Ralph, A.B. (*St. Xavier Coll.*) 1908, *Cincinnati, O.*
 Carroll, Walter Richard, A.B. (*Boston Univ.*) 1907, *Brookline.*
 Cartin, Harry James, M.D. (*Jefferson Med. Coll.*) 1901, *Johnstown, Pa.*
 Cavanaugh, Thomas Edward, A.B. (*Holy Cross Coll.*) 1896, M.D. (*Georgetown Univ. Sch. of Med.*) 1900, *Holyoke.*
 Claggett, Fred Porter, B.L., M.D. (*Dartmouth Coll.*) 1894, *Newport, N.H.*
 Clarke, George William, M.D. 1904, *Roseville, Ill.*
 Cobb, Chester Thompson, M.D. (*Albany Med. Coll.*) 1904, *Easthampton.*
 Coffin, Whitman King, A.B. 1909, *W. Medford.*
 Cohen, Joseph Powitzer, A.B. 1909, *Newburgh, N.Y.*
 Collier, Frederick Amasa, S.B. (*So. Dakota State Coll.*) 1906, S.M. (*ibid.*) 1908, *Los Angeles, Cal.*
 Conro, Arthur Clifton, A.B. (*Harvard Univ.*) 1893, M.D. (*Chattanooga Med. Coll.*) 1901, *E. Longmeadow.*
 Crabtree, Ernest Granville, PH.B. (*Univ. of Wooster*) 1906, *Zanesville, O.*
 Crow, Ira Nelson, M.D. (*State Univ. of Iowa*) 1908, *Iowa City, Ia.*
 Curran, George Robert, S.B. (*Carleton Coll.*) 1887, S.M. (*ibid.*) 1905, M.D. (*Univ. of Michigan*) 1892, *Mankato, Minn.*
 Cutter, Irving Samuel, S.B. (*Univ. of Nebraska*) 1898, M.D. (*ibid.*) 1910, *Omaha, Neb.*
 Daly, Timothy Joseph, M.D. 1897, *Lawrence.*
 Davis, Daniel, A.B. 1909, *Jamestown, R.I.*
 Delahanty, William Joseph, M.D. (*Dartmouth Med. Sch.*) 1883, *Worcester.*
 Denis, Willey, A.B. (*Tulane Univ.*) 1899, A.M. (*ibid.*) 1902, PH.D. (*Univ. of Chicago*) 1907, *New Orleans, La.*
 Denny, Francis Parkman, A.B. 1891, M.D. 1895, *Brookline.*
 Denny, George Parkman, A.B. 1909, *Chestnut Hill.*
 Diemar, Lena Hess, M.D. (*Boston Univ. Sch. of Med.*) 1898, *Cambridge.*
 Donnally, Harry Hampton, S.B. (*Columbian Coll.*) 1896, A.M. (*ibid.*) 1897, M.D. (*George Washington Univ.*) 1903, *Washington, D.C.*
 Dorsey, Frank Blinn, Jr. *Keokuk, Ia.*

- Ellery, Edward, A.B. (*Colgate Coll.*) 1890, A.M.
(*ibid.*) 1893, PH.D. (*Heidelberg Univ.*) 1896,
Schenectady, N. Y.
- Ely, Francis Argyle, M.D. (*State Univ. of Iowa*)
1908,
Des Moines, Ia.
- Farnsworth, Earle Edwin, A.B. (*Cornell Univ.*)
1903,
Grand Island, Neb.
- Farrell, John Edward, M.D. (*Bellevue Hosp.*
Med. Coll.) 1903,
Waterbury, Conn.
- Ferrin, Carlisle Franklin, A.B. (*Univ. of Ver-*
mont) 1891, M.D. (*Columbia Univ.*) 1895,
New London, Conn.
- Fisher, Irving Jewell, M.D. 1900,
W. Newton.
- Fisher, Parnell Ellis, A.B. (*Yale Univ.*) 1891,
M.D. (*Columbia Univ.*) 1894,
Providence, R.I.
- Fitzgerald, Vance Lee, M.D. (*Bellevue Hosp.*
Med. Coll.) 1895,
Providence, R.I.
- Fortner, Edgar Sidney, A.B. (*Missouri State*
Univ.) 1910,
Plano, Tex.
- Fox, George Francis, Jr.
Philadelphia, Pa.
- Frank, Philip, M.D. (*Yale Univ.*) 1907,
New Orleans, La.
- Gallison, William Joseph, A.B. 1888, M.D. 1892,
So. Boston.
- George, Arthur Phillips, M.D. (*Dartmouth Med.*
Sch.) 1896,
Haverhill.
- Gilman, Warren Randall, A.B. 1884, M.D. 1888,
Worcester.
- Gleason, Alson Herbert,
Worcester.
- Greil, Gaston J, S.B. (*Alabama Polytechnic Inst.*)
1897, M.D. (*Columbia Univ.*) 1901,
Montgomery, Ala.
- Guthrie, Edward Martin,
Malden.
- Harper, William Wade, M.D. (*Tulane Univ.*)
1891,
Selma, Ala.
- Harrison, William Groce, S.B. (*Alabama Poly-*
technic Inst.) 1890, M.D. (*Univ. of Maryland*)
1893,
Birmingham, Ala.
- Hathaway, William Reginald Leonard, M.D. (*Med.*
Sch. of Maine) 1901,
Milo, Me.
- Hersam, Norman Paul, S.B. (*Univ. of California*)
1908,
Stoneham.
- Hills, Charles Everett, M.D. (*Dartmouth Med.*
Sch.) 1901,
So. Natick.
- Hodgdon, Caroline Emerson,
Charlestown.
- Hoff, Louis Latzer, M.D. (*Baltimore Med. Coll.*)
1907,
Roxbury.
- Howard, Herbert Handy, S.B. (*Tufts Coll.*) 1909,
Somerville.
- Hunt, Harold Otis, M.D. (*Boston Univ. Sch. of*
Med.) 1909,
Newtonville.
- Hurwitz, Samuel Haymann, A.B. 1907, A.M. 1908,
Chicago, Ill.

- Hutchins, Ainos Francis, A.B. (*St. John's Coll., Md.*) 1906, *Barstow, Md.*
- Jeidell, Helmenia, A.B. (*Columbia Univ.*) 1908, *Baltimore, Md.*
- Jennings, Curtis Herman, M.D. (*Baltimore Univ. Sch. of Med.*) 1902, *Fitchburg.*
- Jordan, Ernest Major, M.D. (*Boston Univ. Sch. of Med.*) 1899, *Boston.*
- Joslyn, Arthur Everett, S.B. (*Northwestern Univ.*) 1903, A.M. (*Harvard Univ.*) 1904, *Beachmont.*
- Kable, John Lobban, *Staunton, Va.*
- Katsainos, George, M.D. (*Univ. of Athens*) 1900, *Boston.*
- Kellogg, Foster Standish, A.B. 1906, M.D. 1910, *Boston.*
- Kelly, William, A.B. (*Trinity Univ.*) 1896, M.D. (*Univ. of Nashville*) 1899, *Philadelphia, Pa.*
- Keough, Matthew Joseph, M.D. (*Albany Med. Coll.*) 1905, *Cohoes, N. Y.*
- Kimball, Samuel Ayer, A.B. (*Yale Univ.*) 1879, M.D. (*Harvard Univ.*) 1882, M.D. (*Boston Univ. Sch. of Med.*) 1883, *Boston.*
- King, Harry Clifton, M.D. (*Hahnemann Med. Coll., Phila.*) 1907, *Washington, D.C.*
- King, Walter Woodruff, M.D. (*Univ. of Colorado Med. Dept.*) 1902, *Cripple Creek, Colo.*
- Kingsbury, Francis Bullard, A.B. 1909, *Holliston.*
- Kleinpell, Henry Herman, PH.G. (*Northwestern Univ.*) 1892, M.D. (*Rush. Med. Coll.*) 1900, *Chicago, Ill.*
- Klugh, Alfred Brooker, A.M. (*Queen's Univ.*) 1910, *Kingston, Can.*
- Knowlton, Don Jerome, A.B. 1908, *Marion.*
- Lacey, Walter Maurice, A.B. (*Williams Coll.*) 1908, *Cheyenne, Wyom.*
- Lane, Clarence Guy, A.B. 1905, M.D. 1908, *Woburn.*
- Lapenta, Vincent Antonio, A.M. (*Lyceum Emanuel II*) 1900, M.D. (*Univ. of Naples*) 1906, *Boston.*
- Lee, Thomas Sim, A.B. (*Harvard Univ.*) 1891, M.D. (*Columbia Univ.*) 1894, *Washington, D.C.*
- Leopold, Raymond S, M.D. (*Hahnemann Med. Coll., Phila.*) 1906, *Philadelphia, Pa.*
- Lineback, Paul Eugene, PH.B. (*Drake Univ.*) 1907, *Des Moines, Ia.*
- Lothrop, Alfred Peirce, A.B. (*Oberlin Coll.*) 1906, A.M. (*ibid.*) 1907, PH.D. (*Columbia Univ.*) 1909, *New York, N. Y.*
- Lovenstein, Rachel Leah, A.B. (*Richmond Coll.*) 1907, A.M. (*ibid.*) 1908, *Richmond, Va.*
- Lyman, Henry, A.B. 1901, *Ponkapoag.*

- McArdle, John Joseph, M.D. (*Bellevue Hosp. Med. Coll.*) 1899, *Lawrence.*
- McCrossan, Charles Leo, A.B. 1907, M.D. 1910, *Somerville.*
- McCullough, Edward, A.B. (*Bowdoin Coll.*) 1890, M.D. (*Harvard Univ.*) 1894, *Meriden, Conn.*
- McCullough, Emma Grace, *Baltimore, Md.*
- MacDonald, Frederick Livingston, M.D. (*Univ. of Vermont Coll. of Med.*) 1907, *Waltham.*
- McFee, William David, M.D. (*Univ. of Vermont Coll. of Med.*) 1897, *Haverhill.*
- McKoan, John William, M.D. 1894, *Worcester.*
- McMillan, Daniel Walter, S.B. (*Tulane Univ.*), M.D. (*ibid.*), *Pensacola, Fla.*
- McNamara, John James, M.D. (*Tufts Med. Sch.*) 1900, *Brockton.*
- McPeck, Clayton, M.D. (*Med. Coll., Starling, O.*) 1910, *Van Wert, O.*
- Macrae, Annie Campbell, M.D., C.M. (*Trinity Coll., Toronto*) 1899, *Fall River.*
- Marshall, Frank Fremont, A.B. 1907, *Worcester.*
- Marston, Henry Edward, A.B. (*Bowdoin Coll.*) 1899, M.D. (*ibid.*) 1908, *Pittsfield, Me.*
- Massey, Myrtle Lothrop, A.B. (*Cornell Univ.*) 1898, M.D. (*Univ. of Buffalo*) 1904, *Buffalo, N. Y.*
- Mathews, Robert Francis, M.D. (*Univ. of Pennsylvania*) 1905, *Worcester.*
- Mathieu, Edward, A.B. 1910, *Brockton.*
- Matulaitis, Francis, M.D. (*Baltimore Med. Coll.*) 1907, *Plymouth, Pa.*
- Mavor, James Watt, A.B. (*Cambridge Univ., Eng.*) 1905, A.M. (*Harvard Univ.*) 1910, *Toronto, Can.*
- Mayfield, Surry Foster, A.B. (*Univ. of Alabama*) 1888, A.M. (*ibid.*) 1893, M.D. (*Tulane Univ.*) 1896, *Tuscaloosa, Ala.*
- Mendenhall, Jean Clements, M.D. (*Drake Univ.*) 1907, *Des Moines, Ia.*
- Mendenhall, Walter Leslie, M.D. (*Drake Univ.*) 1906, *Des Moines, Ia.*
- Metcalf, Martin Van Buren, *Rockville, Conn.*
- Minot, George Richards, A.B. 1908, *Boston.*
- Munger, William Richard, M.D. (*Yale Univ.*) 1898, *Thomaston, Conn.*
- Murphy, Joseph Leroy, A.B. 1909, *Taunton.*
- Nelson, Robert, M.D. (*Birmingham Med. Sch.*) 1905, *Birmingham Ala.*

- Nesselrode, Clifford Calvin, M.D. (*Univ. of Kansas*) 1906,
 Noonan, James Joseph, M.D. (*Albany Med. Coll.*) 1897,
 O'Connor, Thomas Hugh, M.D. (*Coll. of Phys. and Surg., Baltimore*) 1893,
 O'Meara, John George, M.D. (*Univ. of Pennsylvania*) 1899,
 Osterhout, John Jacob, M.D. (*Albany Med. Coll.*) 1898,
 Page, Hugh Nelson, M.D. (*Univ. of Virginia*) 1905,
 Papas, Prodromos Nicholas, A.B. (*Anatolia Coll.*) 1907,
 Partridge, Herbert Graves, A.B. (*Brown Univ.*) 1892, M.D. (*Univ. of Pennsylvania*) 1895,
 Pattajo, Christ. Alexander,
 Patty, Louis Greenlee, M.D. (*Jefferson Med. Coll.*) 1893,
 Pease, Edmund Morris, A.B. (*Pomona Coll.*) 1904,
 Peck, John Hyren, M.D. (*State Univ. of Iowa*) 1909,
 Phelps, Albert Walter, M.D. (*Univ. of Buffalo*) 1898,
 Phelps, Joseph Royal, M.D. 1903,
 Picken, James Hamilton, A.B. (*Monmouth Coll.*) 1907, A.M. (*Harvard Univ.*) 1910,
 Pickett, John Prestly, M.D. (*Shaw Univ.*) 1904,
 Pollard, John William Hobbs, B.L. (*Dartmouth Coll.*) 1895, M.D. (*Univ. of Vermont Coll. of Med.*) 1901,
 Porter, Donald Wallace, A.B. (*Yale Univ.*) 1908,
 Pratt, Elsie Seeleye, L.B. (*Smith Coll.*) 1895, M.D. (*Univ. of Michigan*) 1904,
 Pratt, Ezekiel, A.B. 1909,
 Pulsifer, William Moor, A.B. (*Colby Coll.*) 1882, M.D. (*Harvard Univ.*) 1886,
 Rackemann, Francis Minot, A.B. 1909,
 Rand, Carl Wheeler, A.B. (*Williams Coll.*) 1908, A.M. (*ibid.*) 1909,
 Raymond, Katharine Pratt, S.B. (*Univ. of Cincinnati*) 1898, M.D. (*Univ. of Michigan*) 1905,
 Reeve, George Hall,
 Reggio, André William, A.B. 1908,
- Kansas City, Kan.*
Cohoes, N. Y.
Boston.
Providence, R. I.
Keene, N. H.
Oxford, Miss.
Angora, Asia.
Providence, R. I.
Roxbury.
Carroll, Ia.
Claremont, Cal.
Des Moines, Ia.
E. Aurora, N. Y.
Washington, D. C.
Cambridge.
Camden, S. C.
Exeter, N. H.
New Haven, Conn.
Denver, Colo.
Cohasset.
Skowhegan, Me.
Readville.
Monson.
Wellesley.
Syracuse, N. Y.
Boston.

- Richardson, Anna Gove, M.D. (*Women's Med. Coll. of Pennsylvania*) 1891,
Boston.
- Riley, William Bernard, A.B. (*Holy Cross Coll.*) 1905,
Central Falls, R.I.
- Roberts, Francis Marion, S.B. (*Christian Coll.*) 1900, PH.G. (*Valparaiso Coll., Ind.*) 1904, M.D. (*Barnes Univ.*) 1906,
Ralston, Ia.
- Rockey, Eugene Watson,
Portland, Ore.
- Rogers, Orville Forrest, Jr., A.B. 1908,
Dorchester.
- Ruffin, Sterling, M.D. (*Columbian Univ.*) 1890,
Washington, D.C.
- Russell, Frederick Fuller, M.D. (*Columbia Univ.*) 1893,
Washington, D.C.
- Russell, John Scott, A.B. (*Williams Coll.*) 1907,
Massena, N.Y.
- Schenck, Powhatan Stanley, M.D. (*Baltimore Coll. of Phys. and Surg.*) 1884,
Norfolk, Va.
- Sheib, Samuel Henry, S.B. (*Virginia Polytechnic Inst.*) 1896, M.S. (*ibid.*) 1899,
Nashville, Tenn.
- Sicotte, Isaiah, M.D. (*Univ. of Michigan*) 1907,
National Mine, Mich.
- Smillie, Wilson George, A.B. (*Colorado Coll.*) 1908,
Eaton, Colo.
- Smirnow, Max Ruskin, M.D. (*Yale Univ.*) 1906,
New Haven, Conn.
- Smith, Morell,
Newtown, Pa.
- Smith, Peter Mathew, M.D. (*Georgetown Univ. Sch. of Med.*) 1894,
Boston.
- Smith, Ralph Kendrick,
Boston.
- Sproull, John, M.D. (*Boston Univ. Sch. of Med.*) 1901,
Haverhill.
- Stevens, Grace, B.L. (*Mt. Holyoke Coll.*) 1893,
M.D. (*Boston Univ. Sch. of Med.*) 1901,
Northampton.
- Stine, Dan Gish, A.B. (*Univ. of Missouri*) 1907,
Hopkinsville, Ky.
- Stubbs, George Hamilton, M.D. (*Atlanta Coll. of Phys. and Surg.*) 1895,
Birmingham, Ala.
- Sturge, Edgar, M.D. (*Bellevue Hosp. Med. Coll.*) 1899,
Scranton, Pa.
- Sullivan, Daniel, M.D. (*New York Univ.*) 1897,
New London, Conn.
- Sullivan, Mary Isabel, M.D. (*N. Y. Med. Coll. and Hosp. for Women*)
New York, N.Y.
- Talbot, John Edward, A.B. 1902, LL.B. 1905,
Holliston.
- Taylor, Roy Arnold, M.D. (*Tufts Med. Sch.*) 1906,
Waltham.
- Taylor, William Xerxes, M.D. (*Coll. of Phys. and Surg., Cleveland, O.*) 1903,
Youngstown, O.
- Tomb, Henson Foster, M.D. (*Jefferson Med. Coll.*) 1887,
Johnstown, Pa.

- Tucker, Frederick Albert, M.D. (*Rush Med. Coll.*)
1897, Noblesville, Ind.
- Turner, Harriet Elizabeth, M.D. (*Med. Coll. of
Indiana*) 1896, Indianapolis, Ind.
- Urofsky, Isadore, Boston.
- Ussher, Elizabeth Henrietta, Dedham.
- Waddell, James Alexander, A.B. (*Univ. of Vir-
ginia*) 1901, Charlottesville, Va.
- Wakeman, Bertis Rupert, S.B. (*Cornell Univ.*)
1889, M.D. (*Long Island Coll. Hosp.*) 1893, Hornell, N. Y.
- Walsh, Thomas Nelson, A.B. (*McGill Univ.*) 1889,
M.D. (*ibid.*) 1892, Hawkeye, Ia.
- Ward, John Hester, Ph.G. (*Univ. of the South*)
1899, M.D. (*ibid.*) 1900, Tuscaloosa, Ala.
- Waters, La Verne Francis, M.D. (*Univ. of Buffalo*)
1908, Knowlesville, N. Y.
- Webber, Wolfert Gerson, A.B. 1909, Boston.
- Wentworth, Caroline Young, M.D. (*Boston Univ.
Sch. of Med.*) 1895, Newton Highlands.
- Wentworth, Edward Tubbs, A.B. 1909, Batavia, N. Y.
- White, John Hutchings, M.D. (*Univ. of Virginia*)
1896, Muskogee, Okla.
- Williams, Augusta Gilbert, M.D. (*Women's Med.
Coll. of Philadelphia*) 1894, Brookline.
- Wilson, Philip Duncan, A.B. 1909, Columbus, O.
- Woods, Arthur Daniel, M.D. (*State Univ. of Iowa*)
1906, Melbourne, Ia.
- Wuttke, Edwin Edward, M.D. (*Univ. Med. Coll.,
Kansas City, Mo.*) 1906, Halstead, Kan.

Total number of students 197

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH	8
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE	
FOURTH CLASS	88
THIRD CLASS	46
SECOND CLASS	54
FIRST CLASS	76
SPECIAL STUDENTS	7
TOTAL	279

IN COURSES FOR GRADUATES, OCTOBER 1, 1909, TO JUNE 1, 1910	111
IN SUMMER COURSES, JUNE 1, 1910, TO OCTOBER 1, 1910	197
TOTAL	308

GRADUATES OF COLLEGES

Acadia College	1	Muhlenberg College	1
Amherst College	2	University of New Brunswick	1
Anatolia College (Turkey)	1	Northwestern University	1
Bates College	6	University of Notre Dame	1
Boston College	2	Oberlin College	1
Boston University	2	Ohio University	1
Bowdoin College	7	University of Oregon	1
Brown University	14	Colegio Pinillos (Colombia, S.A.)	1
University of California	3	University of Pittsburg	1
Clark University	7	Princeton University	3
Colby College	4	Richmond College	1
Colorado College	4	University of Rochester	4
Cornell College (Iowa)	3	South Dakota State College	3
Cornell University	1	Santa Clara College	1
Dartmouth College	11	St. John's College (China)	1
De Pauw University	1	Tufts College	2
Dickinson College	1	Ursinus College	1
Georgetown University	1	University of Virginia	1
Gonzaga College	1	Washington and Jefferson College	1
Harvard University	108	Wesleyan University (Conn.)	1
Holy Cross College	15	Westminster College	1
Illinois College	1	William Jewell College	1
University of Illinois	3	Williams College	4
Indiana University	1	University of Wisconsin	4
University of Kansas	2	University of Wooster	1
University of Kentucky	1	Yale University	8
Leland Stanford Jr. University	6	Total	262
McMaster University	1	Counted more than once	4
University of Minnesota	1	Total Number College Graduates	258
University of Missouri	3	Number of Colleges	57
Mt. Allison College	1		

ANNOUNCEMENT FOR 1911-12

The next session of the Medical School begins September 26, 1912. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Thursday, the 26th of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should write prior to this time to the Secretary of the Harvard Medical School, in regard to conditions for admission and the applicant's ability to meet these.

CALENDAR

1911.

- Sept. 21, Thursday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Wednesday.* Examination in Chemistry for admission.
- Sept. 28, Thursday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Tuesday.* Columbus Day: a holiday.
- Nov. 1, Wednesday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 30, Thursday.* Thanksgiving Day: a holiday.
- Dec. 1, Friday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1911, TO JAN. 2, 1912, INCLUSIVE

1912.

- Jan. 1, Monday.* Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Monday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1912.
- Jan. 27, Friday.* Mid-year Examinations begin.
- Jan. 31, Wednesday.* Payment of the second instalment of the tuition-fee is required on or before this date.

- Feb. 1, Thursday.* **Second half-year begins.**
Feb. 22, Thursday. Washington's Birthday : a holiday.
April 1, Monday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 16 TO APRIL 22, INCLUSIVE

- May 1, Wednesday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
May 1, Wednesday. Last day for receiving applications for the Bullard Fellowships.
May 1, Wednesday. Last day for receiving applications for Scholarships for 1911-12 (except the Cheever and Hayden Scholarships).
May 1, Wednesday. Last day for receiving applications of candidates for the degree of M.D. in 1912.
May 30, Thursday. Memorial Day : a holiday.
June 1, Saturday. Examinations begin.
June 15, Saturday. Examination in Chemistry for admission.
June 26, Wednesday. **Commencement.**

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 28, INCLUSIVE

- Sept. 19, Thursday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 25, Wednesday. Examination in Chemistry for admission.
Sept. 26, Thursday. **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
Oct. 12, Monday. Columbus Day : a holiday.
Nov. 1, Friday. Last day for receiving essays for the William H. Thorndike Prize.
Nov. 28, Thursday. Thanksgiving Day : a holiday.
Nov. 30, Saturday. Last day for receiving applications for the Cheever and Hayden Scholarships.

OFFICIAL REGISTER OF HARVARD UNIVERSITY

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The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.



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11/12

OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOLUME VIII

OCTOBER 16, 1911

NUMBER 46

THE HARVARD MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

1911-12

LIBRARY
WITH AN ANNOUNCEMENT FOR 1912-13

UNIVERSITY OF ILLINOIS



Published by Harvard University

ANNOUNCEMENT
OF THE
MEDICAL SCHOOL
LONGWOOD AVENUE, BOSTON, MASS.
OF
HARVARD UNIVERSITY
FOR
1911-12

WITH AN ANNOUNCEMENT FOR 1912-13

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



Published by the University

1911

1911							1912													
JULY							JANUARY							JULY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
..	..	..	..	..	..	1	..	1	2	3	4	5	6	..	1	2	3	4	5	6
2	3	4	5	6	7	8	7	8	9	10	11	12	13	7	8	9	10	11	12	13
9	10	11	12	13	14	15	14	15	16	17	18	19	20	14	15	16	17	18	19	20
16	17	18	19	20	21	22	21	22	23	24	25	26	27	21	22	23	24	25	26	27
23	24	25	26	27	28	29	28	29	30	31	..	..	..	28	29	30	31	..	..	..
30	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AUGUST							FEBRUARY							AUGUST						
..	..	1	2	3	4	5	..	..	..	..	1	2	3	..	..	..	..	1	2	3
6	7	8	9	10	11	12	4	5	6	7	8	9	10	4	5	6	7	8	9	10
13	14	15	16	17	18	19	11	12	13	14	15	16	17	11	12	13	14	15	16	17
20	21	22	23	24	25	26	18	19	20	21	22	23	24	18	19	20	21	22	23	24
27	28	29	30	31	..	..	25	26	27	28	29	..	..	25	26	27	28	29	30	31
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SEPTEMBER							MARCH							SEPTEMBER						
..	..	..	..	..	1	2	..	..	..	..	..	1	2	1	2	3	4	5	6	7
3	4	5	6	7	8	9	3	4	5	6	7	8	9	8	9	10	11	12	13	14
10	11	12	13	14	15	16	10	11	12	13	14	15	16	15	16	17	18	19	20	21
17	18	19	20	21	22	23	17	18	19	20	21	22	23	22	23	24	25	26	27	28
24	25	26	27	28	29	30	24	25	26	27	28	29	30	29	30	..	..	..	..	..
..	..	..	..	..	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..
OCTOBER							APRIL							OCTOBER						
1	2	3	4	5	6	7	..	1	2	3	4	5	6	..	..	1	2	3	4	5
8	9	10	11	12	13	14	7	8	9	10	11	12	13	6	7	8	9	10	11	12
15	16	17	18	19	20	21	14	15	16	17	18	19	20	13	14	15	16	17	18	19
22	23	24	25	26	27	28	21	22	23	24	25	26	27	20	21	22	23	24	25	26
29	30	31	..	..	..	..	28	29	30	..	..	..	..	27	28	29	30	31	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NOVEMBER							MAY							NOVEMBER						
..	..	..	1	2	3	4	..	..	..	1	2	3	4	..	..	..	..	..	1	2
5	6	7	8	9	10	11	5	6	7	8	9	10	11	3	4	5	6	7	8	9
12	13	14	15	16	17	18	12	13	14	15	16	17	18	10	11	12	13	14	15	16
19	20	21	22	23	24	25	19	20	21	22	23	24	25	17	18	19	20	21	22	23
26	27	28	29	30	..	..	26	27	28	29	30	31	..	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DECEMBER							JUNE							DECEMBER						
..	..	..	..	..	1	2	..	..	..	..	..	..	1	1	2	3	4	5	6	7
3	4	5	6	7	8	9	2	3	4	5	6	7	8	8	9	10	11	12	13	14
10	11	12	13	14	15	16	9	10	11	12	13	14	15	15	16	17	18	19	20	21
17	18	19	20	21	22	23	16	17	18	19	20	21	22	22	23	24	25	26	27	28
24	25	26	27	28	29	30	23	24	25	26	27	28	29	29	30	31	..	..	..	..
31	..	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..

CONTENTS

	PAGE
MEDICAL SCHOOL CALENDAR	5
FACULTY OF MEDICINE	7
FACULTY COUNCIL	10
STANDING COMMITTEES FOR THE MEDICAL SCHOOL	10
ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL	11
ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL	11
ADMINISTRATIVE BOARD OF THE MEDICAL SCHOOL	12
STANDING COMMITTEES OF THE ADMINISTRATIVE BOARD	12
GENERAL STATEMENT	13
BUILDINGS AND HOSPITAL FACILITIES	14
INSTRUCTORS, LECTURERS, AND ASSISTANTS	15
AUSTIN TEACHING FELLOWS	21
ADMISSION OF STUDENTS	22
ADMISSION TO ADVANCED STANDING	23
DIVISION OF STUDENTS	24
TABLE OF DIVISION OF STUDIES	25
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	26
Anatomy	26
Comparative Anatomy	28
Physiology	29
Comparative Physiology	32
Biological Chemistry	32
Bacteriology	33
Pathology	34
Legal Medicine	35
Comparative Pathology	36
Neuropathology	36
Preventive Medicine and Hygiene	37
Materia Medica and Therapeutics	38
Theory and Practice of Physic	39
Clinical Medicine	41
Tropical Medicine	42
Pediatrics	43
Roentgen Ray	44
Surgery	44
Orthopedics	48

	PAGE
Obstetrics and Gynaecology	48
Dermatology and Syphilis	50
Neurology and Psychiatry	51
Ophthalmology	53
Otology	53
Laryngology and Rhinology	54
FOURTH-YEAR ELECTIVES	55
FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS . . .	56
EXAMINATIONS	73
DEGREES	75
FEES AND EXPENSES	76
CLINICAL ADVANTAGES	78
HOSPITAL APPOINTMENTS	82
WARREN MUSEUM	82
LIBRARIES	83
FELLOWSHIPS AND SCHOLARSHIPS	83
PRIZES	89
COURSES FOR SPECIAL STUDENTS	91
COURSES OF STUDY FOR GRADUATES	92
SUMMER SCHOOL OF MEDICINE	93
LIST OF GRADUATE COURSES	94
LIST OF SUMMER COURSES	102
TABULAR VIEW OF UNDERGRADUATE COURSES	112
DEGREES CONFERRED IN 1911	118
ANNUAL EXAMINATION PAPERS	121
STUDENTS	137
ANNOUNCEMENT FOR 1912-13	166

MEDICAL SCHOOL CALENDAR

1911.

- Sept. 21, Thursday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Wednesday.* Examination in Chemistry for admission.
- Sept. 28, Thursday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Thursday.* Columbus Day : a holiday.
- Nov. 1, Wednesday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 30, Thursday.* Thanksgiving Day : a holiday.
- Nov. 30, Thursday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

1912.

RECESS FROM DEC. 23, 1911, TO JAN. 2, 1912, INCLUSIVE

- Jan. 1, Monday.* Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Monday.* Last day for receiving applications for admission to examinations for the degrees of Ph.D. and A.M. in 1912.
- Jan. 27, Saturday.* Mid-year Examinations begin.
- Jan. 31, Wednesday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Thursday.* **Second half-year begins.**
- Feb. 22, Thursday.* Washington's Birthday : a holiday.
- April 1, Monday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 14 TO APRIL 20, INCLUSIVE

- May 1, Wednesday.* Last day for receiving applications for the Bullard Fellowships.
- May 1, Wednesday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 1, Wednesday.* Last day for receiving applications for Scholarships for 1912-13 (except the Cheever and Hayden Scholarships).
- May 1, Wednesday.* Last day for receiving applications of candidates for the degree of M.D. in 1912.
- May 29, Wednesday.* Examinations begin.
- May 30, Thursday.* Memorial Day: a holiday.
- June 14, Friday.* Examination in Chemistry for admission.
- June 20, Thursday.* Commencement.

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 22, INCLUSIVE

- Sept. 16, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 21, Saturday.* Examination in Chemistry for admission.
- Sept. 23, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Saturday.* Columbus Day: a holiday.
- Nov. 1, Friday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 28, Thursday.* Thanksgiving Day: a holiday.
- Nov. 30, Saturday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL

FACULTY OF MEDICINE *

ADDRESS.†

ABBOTT LAWRENCE LOWELL, LL.B., LL.D., Ph.D. (hon), PRESIDENT,	17 Quincy St., Cambridge.
HENRY A. CHRISTIAN, M.D., DEAN, and <i>Hersey</i> <i>Professor of the Theory and Practice of Physic,</i>	252 Marlborough St.
CLARENCE J. BLAKE, M.D., <i>Walter Augustus Le-</i> <i>compte Professor of Otology,</i>	226 Marlborough St.
JOHN H. MCCOLLOM, M.D., S.M., <i>Professor of Con-</i> <i>tagious Diseases,</i>	Boston City Hospital.
ABNER POST, M.D., <i>Professor of Syphilis,</i>	16 Newbury St.
JAMES J. PUTNAM, M.D., <i>Professor of Diseases of</i> <i>the Nervous System,</i>	106 Marlborough St.
FREDERICK C. SHATTUCK, M.D., LL.D., <i>Jackson</i> <i>Professor of Clinical Medicine,</i>	135 Marlborough St.
EDWARD H. BRADFORD, M.D., <i>Professor of Ortho-</i> <i>pedic Surgery,</i>	133 Newbury St.
CHARLES A. BRACKETT, D.M.D., <i>Professor of</i> <i>Dental Pathology,</i>	Newport, R.I.
THOMAS MORGAN* ROTCH, M.D., <i>Professor of</i> <i>Pediatrics,</i>	197 Commonwealth Ave.
EUGENE H. SMITH, D.M.D., <i>Professor of Clinical</i> <i>Dentistry and Orthodontia, and Dean of the Dental</i> <i>School,</i>	283 Dartmouth St.
WILLIAM F. WHITNEY, M.D., <i>John Barnard Swett</i> <i>Jackson Curator of the Warren Anatomical Museum,</i>	Harvard Medical School.
CHARLES S. MINOT, S.D., LL.D., <i>James Stillman</i> <i>Professor of Comparative Anatomy,</i>	Harvard Medical School.
MAURICE H. RICHARDSON, M.D., <i>Moseley Professor</i> <i>of Surgery,</i>	224 Beacon St.

* Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- CHARLES M. GREEN, M.D., *Professor of Obstetrics and Gynaecology*, 78 Marlborough St.
- EDWARD C. BRIGGS, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics*, 129 Marlborough St.
- WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy*, 78 Bay State Road.
- GEORGE HOWARD MONKS, M.D., M.R.C.S., *Professor of Oral Surgery*, 67 Marlborough St.
- MYLES STANDISH, M.D., S.D., *Williams Professor of Ophthalmology*, 6 St. James Ave.
- HAROLD C. ERNST, M.D., *Professor of Bacteriology*, Harvard Medical School.
- WILLIAM P. COOKE, D.M.D., *Professor of Prosthetic Dentistry*, 330 Dartmouth St.
- PHILIP COOMBS KNAPP, M.D., *Clinical Instructor in Diseases of the Nervous System*, 535 Beacon St.
- WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry*, 16 Arlington St.
- HERMAN F. VICKERY, M.D., *Instructor in Clinical Medicine*, 263 Beacon St.
- HENRY JACKSON, M.D., *Instructor in Clinical Medicine*, 380 Marlborough St.
- GEORGE G. SEARS, M.D., *Associate Professor of Clinical Medicine*, 426 Beacon St.
- ALGERNON COOLIDGE, JR., M.D., *Professor of Laryngology*, 613 Beacon St.
- ROBERT W. LOVETT, M.D., *Assistant Professor of Orthopedic Surgery*, 234 Marlborough St.
- FRANZ PFAFF, M.D., *Professor of Pharmacology and Therapeutics*, 29 Gloucester St.
- THEOBALD SMITH, M.D., LL.D., S.D., *George Fabryan Professor of Comparative Pathology*, Harvard Medical School.
- WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology*, Harvard Medical School.
- PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery*, 24 Marlborough St.
- JAMES G. MUMFORD, M.D., *Instructor in Surgery*, 29 Commonwealth Ave.
- MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene*, 65 Naples Road, Brookline.
- FRANK B. MALLORY, M.D., *Associate Professor of Pathology*, Harvard Medical School.

- EDWARD H. NICHOLS, M.D., *Assistant Professor of Surgical Pathology*, and *Assistant Professor of Surgery*, 294 Marlborough St.
- JOHN B. BLAKE, M.D., *Assistant Professor of Surgery*, 161 Beacon St.
- HOWARD A. LOTHROP, M.D., *Instructor in Surgery*, 101 Beacon St.
- JOHN L. MORSE, M.D., *Associate Professor of Pediatrics*, 70 Bay State Road.
- CHARLES A. PORTER, M.D., *Assistant Professor of Surgery*, 254 Beacon St.
- EDWARD W. TAYLOR, M.D., *Instructor in Neurology*, 457 Marlborough St.
- RICHARD C. CABOT, M.D., *Assistant Professor of Clinical Medicine*, 190 Marlborough St.
- ELLIOTT P. JOSLIN, M.D., *Instructor in the Theory and Practice of Physic*, 81 Bay State Road.
- CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology*, 259 Marlborough St.
- JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology*, Mass. General Hospital.
- HARVEY CUSHING, M.D. *Professor of Surgery* (on leave of absence), 107 E. Chase St., Baltimore, Md.
- WILLIAM P. GRAVES, M.D., *Professor of Gynaecology*, 244 Marlborough St.
- OTTO FOLIN, PH.D., *Hamilton Kuhn Professor of Biological Chemistry*, Harvard Medical School.
- ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery*, 377 Beacon St.
- FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology*, 379 Beacon St.
- WILLIAM H. SMITH, M.D., *Instructor in Clinical Medicine*, 377 Beacon St.
- HUGH CABOT, M.D., *Instructor in Genito-Urinary Surgery*, 87 Marlborough St.
- LEONARD W. WILLIAMS, PH.D., *Instructor in Comparative Anatomy*, Harvard Medical School.
- JOHN L. BREMER, M.D., *Demonstrator of Histology*, Harvard Medical School.
- WALTER B. CANNON, M.D., *George Higginson Professor of Physiology*, Harvard Medical School.
- JOHN WARREN, M.D., *Assistant Professor of Anatomy*, Harvard Medical School.
- DAVID CHEEVER, M.D., *Demonstrator of Anatomy*, 20 Hereford St

FREDERIC T. LEWIS, M.D., <i>Assistant Professor of Embryology,</i>	Harvard Medical School.
ERNEST G. MARTIN, Ph.D., <i>Assistant Professor of Physiology,</i>	Harvard Medical School.
ELMER E. SOUTHARD, M.D., <i>Bullard Professor of Neuropathology,</i>	37 Trowbridge St., Cambridge.
ERNEST E. TYZZER, M.D., <i>Assistant Professor of Pathology,</i>	Harvard Medical School.
LAWRENCE J. HENDERSON, M.D., <i>Assistant Professor of Biological Chemistry,</i>	Harvard Medical School.
HOWARD T. KARSNER, M.D., <i>Assistant Professor of Pathology,</i>	Harvard Medical School.
S. BURT WOLBACH, M.D., <i>Assistant Professor of Bacteriology,</i>	Harvard Medical School.
CHANNING FROTHINGHAM, Jr., M.D., <i>Secretary of the Faculty of Medicine, and Assistant in the Theory and Practice of Physic,</i>	51 Hereford St.

FACULTY COUNCIL

HENRY A. CHRISTIAN, M.D., DEAN, and <i>Hersey Professor of the Theory and Practice of Physic.</i>
WILLIAM T. COUNCILMAN, M.D., <i>Shattuck Professor of Pathological Anatomy.</i>
MYLES STANDISH, M.D., <i>Williams Professor of Ophthalmology.</i>
GEORGE G. SEARS, M.D., <i>Associate Professor of Clinical Medicine.</i>
JOHN B. BLAKE, M.D., <i>Assistant Professor of Surgery.</i>
WALTER B. CANNON, M.D., <i>George Higginson Professor of Physiology.</i>
JOHN WARREN, M.D. (<i>Secretary</i>), <i>Assistant Professor of Anatomy.</i>

STANDING COMMITTEES FOR THE MEDICAL SCHOOL

Admission. — Dr. Christian (*Chairman*), and Drs. Folin and Lewis.

Buildings. — Dr. J. Warren (*Chairman*), and Drs. Bremer and C. Frothingham, Jr.

Library. — Dr. Joslin (*Chairman*), and Drs. W. T. Porter, L. W. Williams, and Southard.

Students' Health. — Dr. Ernst (*Chairman*), and Drs. Putnam, E. H. Smith, Dexter, J. B. Blake, and Badger.

Summer School of Medicine. — Dr. Robert M. Green (*Chairman and Director*), and Drs. Morse, Greenough, Newell, and Southard.

ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL

The Dean's Office is in the Administration Building of the Medical School, Room 104. It is open daily from 9 to 1 and from 2 to 5, except on Saturdays, Sundays, and holidays; on Saturdays it is open from 9 to 1. Those seeking information about the Medical School should inquire at this office.

The Bursar's Office is in Dane Hall, Harvard University, Cambridge. It is open daily, except Sundays and holidays, from 9 to 1, for the receipt of fees, payments, and other financial business. A representative of the Bursar will be in the Administration Building at the Medical School at stated hours on certain days at the opening of each term for the receipt of fees from regular students. Fees for graduate courses and summer courses, as well as all special fees, may be paid at the Dean's Office, Administration Building of the Medical School.

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL

President: ABBOTT LAWRENCE LOWELL, LL.B., LL.D., PH.D. (hon.).

Office, 5 University Hall, Cambridge.

Dean: HENRY A. CHRISTIAN, M.D.

Office, Administration Building, Medical School. Office hours, Fridays, 4 to 5 P.M.

Secretary of the Faculty: CHANNING FROTHINGHAM, JR., M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays and Thursdays, 12 M. to 1 P.M.

Director of Scholarships: FRANKLIN DEXTER, M.D.

Office, Room 386, Building D I, Medical School. Office hours, Mondays, 2.45 to 3.15 P.M.

Director of the Summer School of Medicine: ROBERT M. GREEN, M.D.

Office, Administration Building, Medical School. Office hours, 9 to 10 A.M. daily, except Saturdays, June 1 to September 30.

Chairman of the Committee on the Degree of Doctor of Public Health:

MILTON J. ROSENAU, M.D.

Office, Room 238, Building E II, Medical School. Office hours by appointment.

Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences: WALTER B. CANNON, M.D.

Office, Room 301, Building C I, Medical School. Office hours, Mondays, 2 to 3 P.M.

Chief Clerk in the Dean's Office: CAROLINE D. BALDWIN.

Office, Administration Building, Medical School. Office hours, from 9 to 1 and from 2 to 5 daily, except Saturdays; on Saturdays, from 9 to 1.

ADMINISTRATIVE BOARD

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ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

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THE HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of BACHELOR OF MEDICINE; beginning with 1811, the degree has been DOCTOR OF MEDICINE. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first MEDICAL COLLEGE was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth-year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 74.

The degree of Doctor of Medicine *cum laude* is given to candidates who obtain an average of 80 per cent. or over in all the required examinations.

Beginning with 1906, special students, not candidates for the degree of Doctor of Medicine, have been admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 91.

Pamphlets descriptive of the many courses of study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Secretary of the Harvard Medical School, Longwood Avenue, Boston, Mass.

THE MEDICAL SCHOOL BUILDINGS AND HOSPITAL FACILITIES

In September, 1906, the Medical School moved into its new buildings which occupy eleven acres on Longwood Avenue, Boston. The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, biological chemistry, and theory and practice of physic; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) preventive medicine and hygiene, pharmacology, comparative pathology, and surgery.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms

were originally designed. These buildings provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

At the present time the clinical instruction is carried on in the wards and out-patient departments of the Massachusetts General Hospital, Boston City Hospital, Boston Lying-in Hospital, Boston Dispensary, Infants' Hospital, Children's Hospital, McLean Hospital, Boston State Hospital, Massachusetts Charitable Eye and Ear Infirmary, Long Island Hospital, Carney Hospital, and Free Hospital for Women. For a detailed statement of the number of patients treated in these hospitals see pages 78-82.

In the Medical School buildings there is an out-patient clinic which is open all the year. Although only recently started this clinic is already large enough for teaching purposes in medicine, surgery, and several of the specialties.

The Medical School buildings shortly will be surrounded by several new hospitals, in which the Chief of Staff of the various services will be nominated by the University. Already the plans are practically completed and construction has begun or will soon begin on the Peter Bent Brigham Hospital, the Children's Hospital, the Infants' Hospital, and the Cancer Hospital. For further details of these hospitals see pages 78-82.

INSTRUCTORS, LECTURERS, AND ASSISTANTS *

EDWARD COWLES, M.D., LL.D., <i>Instructor in Men- tal Diseases,</i>	ADDRESS † 419 Boylston St.
GEORGE T. TUTTLE, M.D., <i>Clinical Instructor in Mental Diseases,</i>	Waverley.
SAMUEL J. MIXTER, M.D., <i>Lecturer on Surgery,</i>	180 Marlborough St.
GEORGE H. MONKS, M.D., M.R.C.S., <i>Lecturer on Surgery,</i>	67 Marlborough St.
FRANCIS B. HARRINGTON, M.D., <i>Lecturer on Surgery,</i>	201 Beacon St.
WILLIAM F. KNOWLES, M.D., <i>Assistant in Otology,</i>	220 Clarendon St.
J. PAYSON CLARK, M.D., <i>Instructor in Laryngology,</i>	71 Marlborough St.

* Arranged on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- CHARLES L. SCUDDER, M.D., *Lecturer on Surgery*, 209 Beacon St.
 ELLIOTT G. BRACKETT, M.D., *Instructor in Orthopedics*, 166 Newbury St.
 ARTHUR K. STONE, M.D., *Instructor in the Theory and Practice of Physic*, 44 Fairfield St.
 FREDERIC C. COBB, M.D., *Instructor in Laryngology*, 11 Marlborough St.
 AUGUSTUS THORNDIKE, M.D., *Instructor in Orthopedics*, 601 Beacon St.
 MALCOLM STORER, M.D., *Instructor in Gynaecology*, 302 Beacon St.
 LANGDON FROTHINGHAM, M.D.V., *Instructor in Bacteriology*, Harvard Medical School.
 WILLIAM N. SOUTER, M.D., *Fellow in Ophthalmology*, Portsmouth, N. H.
 WILLIAM E. FAULKNER, M.D., *Instructor in Surgery*, 290 Marlborough St.
 ALEXANDER QUACKENBOSS, M.D., *Instructor in Ophthalmology*, 143 Newbury St.
 EUGENE A. CROCKETT, M.D., *Instructor in Otology*, 298 Marlborough St.
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 HARVEY P. TOWLE, M.D., *Assistant in Dermatology*, 453 Marlborough St.
 ALFRED M. AMADON, M.D., *Assistant in Otology*, 543 Boylston St.
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 JAMES S. STONE, M.D., *Assistant in Surgery*, 234 Marlborough St.
 ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology*, 234 Clarendon St.
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 CALVIN G. PAGE, M.D., *Instructor in Bacteriology*, 128 Marlborough St.
 C. MORTON SMITH, M.D., *Assistant in Syphilis*, 437 Marlborough St.
 FRANKLIN W. WHITE, M.D., *Instructor in Clinical Medicine*, 416 Marlborough St.
 ERNEST A. CODMAN, M.D., *Assistant in Surgery*, 227 Beacon St.
 WILLIAM H. ROBEY, JR., M.D., *Instructor in Clinical Medicine*, 202 Commonwealth Ave.

- GEORGE S. C. BADGER, M.D., *Instructor in the Theory and Practice of Physic*, 48 Hereford St.
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- LE ROI G. CRANDON, M.D., *Assistant in Surgery*, 366 Commonwealth Ave.
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- WALTER C. HOWE, M.D., *Assistant in Surgery*, 303 Beacon St.
- MAYNARD LADD, M.D., *Instructor in Pediatrics*, 270 Clarendon St.
- GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine*, 274 Boylston St.
- JOSEPH H. PRATT, M.D., *Instructor in the Theory and Practice of Physic*, 313 Beacon St.
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- ROBERT B. OSGOOD, M.D., *Assistant in Orthopedics*, 372 Marlborough St.

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- JAMES R. TORBERT, M.D., *Assistant in Obstetrics*,
252 Marlborough St.
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Ophthalmic Pathology, 95 Mountfort St.
- GEORGE A. WATERMAN, M.D., *Assistant in Neu-*
rology, 395 Marlborough St.
- PERCY BROWN, M.D., *Assistant in the Use of the*
Roentgen Ray, 155 Newbury St.
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- BETH VINCENT, M.D., *Assistant in Surgery*, 294 Beacon St.
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- JAMES B. AYER, M.D., *Assistant in Neuropathology*,
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- WILLIAM S. WHITTEMORE, M.D., *Assistant in Anatomy*,
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- HAROLD L. AMOSS, M.D., *Assistant in Preventive Medicine and Hygiene*,
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- RALPH E. MYERS, A.M., *Teaching Fellow in Physiology*,
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ALBERT F. BORETTI, M.D., *Assistant in Pathology*,
Harvard Medical School.

AUSTIN TEACHING FELLOWS

- CLEAVELAND FLOYD, M.D., *in Bacteriology*, 246 Marlborough St.
EUGENE L. PORTER, A.M., *in Physiology*, Harvard Medical School.
HALSEY B. LODER, M.D., *in Surgery*, Harvard Medical School.
J. HOWARD BROWN, S.M., *in Comparative Pathology*,
145 Harvard Ave., Allston.
ARCHIBALD B. MACALLUM, M.D., *in Biological Chemistry*,
Harvard Medical School.
CHESTER H. HEUSER, A.M., *in Histology and Embryology*,
6 Park Drive, Brookline.

THE HARVARD MEDICAL SCHOOL

ADMISSION OF STUDENTS

I. Students who have acquired from a recognized college or scientific school a degree in arts or science, following the completion of a course of at least three collegiate years, are admitted as regular students and candidates for the degree of M.D. provided they present certificates showing that they have done satisfactory work in chemistry equivalent to two college courses, with laboratory work in each amounting at least to four hours per week. These courses in chemistry should include general chemistry, organic chemistry, and qualitative analysis; some practice in making careful quantitative determinations is desirable. In case the student cannot present such certificates in chemistry he will be required to pass examinations in these subjects. Students who are not quite able to fulfil all of the requirements in chemistry may enter conditioned in chemistry; but they must make up the condition before the beginning of the second term of the first year.*

II. Candidates who present certificates showing that they have completed two years of undergraduate work at a recognized college or scientific school will be admitted as special students, provided they are able to read French or German and have taken the following college courses, with at least four hours of laboratory work per week in each. (The minimum proportion of a college year to be devoted to each is indicated.)

* Although students are admitted to the Medical School under the conditions indicated under I, it is recommended to those who propose to study medicine that they include if possible among their studies in college certain courses which serve as a direct preparation for or are aids in the study of medicine. Such studies are:—

Chemistry as outlined under I, and without which students are not admitted to the Medical School.

Physics. A college course in experimental physics extending through the college year and including at least four hours of laboratory work per week. The laboratory work should consist largely of accurate physical measurements.

Biology. Two college courses with laboratory work in each amounting to at least four hours per week. This work should include general biology, the dissection of vertebrates, and practice in the use of the microscope and in microscopic technique.

French and German. Any courses requiring considerable practice in reading.

The courses offered by the Harvard Faculty of Arts and Sciences which fit these recommendations are as follows: Physics *C*; Chemistry 1, 2, and 3; Zoölogy 1, 2, 3, and 4; Botany 2; together with several courses in French and German.

Physics ($\frac{1}{4}$ year or 250 hours).

General Chemistry ($\frac{1}{4}$ year or 250 hours).

Qualitative Analysis ($\frac{1}{8}$ year or 125 hours).

Organic Chemistry ($\frac{1}{8}$ year or 125 hours).

Zoölogy (which must include dissection of vertebrates and work with the microscope) ($\frac{1}{4}$ year or 250 hours).

Special students who attain an average grade within five points of the honor mark in their years of residence at the Harvard Medical School will be accepted as candidates for the degree of M.D.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other recognized medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations and fulfil all requirements of laboratory and practical work in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission enumerated under I. Other students who fulfil the requirements for admission enumerated under II may be admitted to advanced standing as special students provided they furnish satisfactory certificate of time spent in medical studies, pass examinations and fulfil all requirements of laboratory and practical work in branches already pursued by the class to which they seek admission. Special students admitted to advanced standing may be accepted as candidates for the degree of M.D. provided they attain an average grade within five points of the honor mark in the years of their residence at the Harvard Medical School.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations and by fulfilling all requirements of laboratory and practical work required in the full undergraduate course, and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examination), and June.

Applicants for advanced standing and graduates of another medical school who have fulfilled in another recognized medical school the requirements of laboratory or practical work of a department of this School may be excused from repeating such requirements, provided the instruction which they have received is considered satisfactory by the Committee on Admission in conference with the head of the department concerned.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Thursday, the first day of the academic year.

*Students are required to devote themselves exclusively to the work of the School.**

Any student may obtain a certificate of his period of connection with the School.

* The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR ELECTIVES
*Anatomy 3	*Bacteriology 1	*Materia Medica and Therapeutics 2	Roentgen Ray 1 and 2
*Histology and Embryology 3	*Pathology 3	*Theory and Practice 3	Pediatrics 1
Physiology 3	Preventive Medicine and Hygiene 1	Clinical Medicine 3	Surgery 1, 2, 3, 4, 5, 6, 7, 8 and 9.
Biochemistry 3	<i>Materia Medica and Therapeutics</i>	Pediatrics 2	Orthopedics 1 and 2
	<i>Theory and Practice</i>	*Surgery (written 2 hrs., practical 1 hr.) 3	Obstetrics 1
	<i>Clinical Medicine</i>	Clinical Surgery (written 1 hr., practical 1 hr.) 2	Gynaecology 1
	<i>Surgery</i>	Obstetrics 3	Dermatology and Syphilis 1, 2, 3 and 4
		Gynaecology 1	Neurology and Psychiatry 1
		Dermatology 1	Ophthalmology 1 and 2
		Syphilis 1	Otology 1, 2 and 3.
		Neurology 1	Laryngology 1, 2 and 3
		Psychiatry 1	
		*Ophthalmology 1	
		Otology 1	
		Laryngology 1	
		<i>Genito-Urinary Surgery</i>	
		<i>Legal Medicine</i>	
			Anatomy 1
			Comp. Anatomy 1, 2, 3, 4 and 5
			Physiology 1 and 2
			Comparative Physiology 1 and 2
			Biochemistry 1
			Bacteriology 1
			Pathology 1, 2 and 3
			Comparative Pathology 1, 2 and 3
			Neuropathology 1 and 2
			Preventive Medicine and Hygiene 1
			Legal Medicine
			Experimental Pharmacology.
			Theory and Practice 1, 2, 3, 4 and 5
			Clinical Medicine 1
			Tropical Medicine

NOTE. — Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates the length in hours of the examination. In the fourth year, electives must be chosen aggregating 1000 hours; both half-courses and quarter-courses are offered occupying 125 and 65 hours respectively.

* Examination in February.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
Ch.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
I.H.	= Infants' Hospital.
L.I.H.	= Long Island Hospital.
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.H.	= Samaritan Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

JOHN WARREN, M.D., *Assistant Professor of Anatomy.*

DAVID CHEEVER, M.D., *Demonstrator of Anatomy.*

HARRIS P. MOSHER, M.D., *Instructor in Anatomy.*

LUTHER D. SHEPARD, M.D., D.M.D., *Instructor in Dental Histology and
Dental Anatomy.*

JOHN B. HARTWELL, M.D., *Assistant in Anatomy.*

ROBERT M. GREEN, M.D., *Assistant in Anatomy.*

WALTER M. BOOTHBY, M.D., *Assistant in Anatomy.*

ALBERT EHRENFRIED, M.D., *Assistant in Anatomy.*

WILLIAM S. WHITTEMORE, M.D., *Assistant in Anatomy.*

GEORGE W. MORSE, Jr., M.D., *Assistant in Anatomy.*

EDWARD L. YOUNG, Jr., M.D., *Assistant in Anatomy.*

ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy.*

First Year. — The course in anatomy occupies the mornings in October, November, and December, and both mornings and afternoons in January. The instruction consists of lectures; various practical exercises, including abundant dissection; recitations; demonstrations; and study of frozen sections and of the living model. This year the whole class will dissect the same part at the same time in order to avoid repetition of demonstrations and to correlate as closely as possible the lectures and the laboratory work. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 90.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Piersol. Gray. Cunningham. Quain. Morris. Gerrish.

Collateral Reading. — Dwight, Clinical Atlas of Variations of Hands and Feet. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Sobotta McMurrich, Atlas and Text-book of Human Anatomy. Testut, Anatomie humaine. Poirier, Traité d'Anatomie humaine. Corning, Lehrbuch der Topographischen Anatomie. Tillaux, Anatomie topographique.

FIRST YEAR

October

	HOURS
Lectures. — —. <i>Seven hours weekly.</i>	28
Study of bones and joints with recitations. <i>Three hours a day, five times a week, for first three weeks.</i>	45
Practical anatomy with demonstrations and recitations. Dr. WARREN and assistants. <i>Three hours a day, five times a week, for the last week.</i>	15

November, December and January, A.M.*

Lectures. — —. <i>Daily.</i>	66
Practical anatomy with recitations. Drs. WARREN, CHEEVER and assistants. <i>Three hours a day, five times a week.</i>	165

January, P.M.

Lectures. Dr. WARREN. <i>Daily.</i>	24
Study of the central nervous system and organs of special sense. <i>Three hours a day, five times a week, for three weeks.</i>	45
Practical anatomy with recitations. <i>Three hours a day, five times a week, for one week.</i>	15

* Dr. PERCY BROWN will give a certain number of lectures on X-Ray Anatomy on Saturday mornings in November, December and January.

Comparative Anatomy

CHARLES S. MINOT, S.D., LL.D., *James Stillman Professor of Comparative Anatomy.*

FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology.*

JOHN L. BREMER, M.D., *Demonstrator of Histology.*

LEONARD W. WILLIAMS, Ph.D., *Instructor in Comparative Anatomy.*

LUTHER D. SHEPARD, M.D., D.M.D., *Instructor in Dental Histology and Dental Anatomy.*

FRANKLIN P. JOHNSON, A.M., *Instructor in Histology and Embryology.*

ALEXANDER S. BEGG, M.D., *Teaching Fellow in Histology and Embryology.*

CHESTER H. HEUSER, A.M., *Austin Teaching Fellow in Histology and Embryology.*

LABORATORY

In this department instruction in Comparative Anatomy, Histology, and Emryology is given.

The laboratory occupies the southeast wing of the new Morgan Anatomical Building. There are separate rooms for fourth-year and graduate students and for various kinds of special technical work. There are unit rooms for class work, each of which measures twenty-three by thirty feet, well lighted, and thoroughly equipped. Each unit room is designed for twenty-four elementary or twelve advanced students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about eight thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in human histology and embryology, and in comparative anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises over fifteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes fifty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet known.

REGULAR COURSES

First Year.—This course is intended to teach the normal histology of the human body. It deals with the cells, tissues, and organs from the developmental standpoint. After a brief consideration of the cell, the fertilization and segmentation of the ovum are taken up as an introduction

to the study of the chick embryo of 36 hours and the pig embryo of 20 days. In this work special stress is laid on the origin and growth of the different organs. During the remainder of the course the various tissues and organs are studied in succession, special attention being given to organogeny. With the work on the uterus, the human placenta and fetal membranes are given special emphasis.

Microscope and Laboratory Fees. — Every student is advised to purchase a microscope, but microscopes may be rented for five dollars for the whole first-year work. Each regular medical student is charged a laboratory fee of three dollars.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Stöhr's Histology, 6th edition, edited by F. T. Lewis. Minot, Laboratory Text-book of Embryology.

Collateral Reading. — Kölliker, Gewebelehre. Minot, Human Embryology. Hertwig, Handbuch der Entwicklungslehre der Wirbeltiere.

FIRST YEAR

<i>October, November, December</i>	HOURS
Lectures. Professor MINOT, Asst. Professor LEWIS, and Dr. BREMER. <i>One half-hour five times a week.</i>	30
Laboratory work. <i>Three and one-half hours five times a week.</i>	210
Quiz. <i>Two hours once a week.</i>	24

INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology*

ERNEST G. MARTIN, Ph.D., *Assistant Professor of Physiology.*

LEONARD B. NICE, Ph.D., *Instructor in Physiology.*

IVAN R. BURKET, A.M., *Teaching Fellow in Physiology.*

RALPH E. MYERS, A.M., *Teaching Fellow in Physiology.*

EUGENE L. PORTER, A.M., *Austin Teaching Fellow in Physiology.*

First Year.—The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology or Biological Chemistry, based upon reading of the records of original investigations, is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Theses in Physiology, which are closely related to the regular instruction, are presented before the class; in each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is divided into sections and quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization. The examination books are returned, corrected, to the students.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Fourth Year.—For a description of the fourth-year courses offered in this department, see p. 57.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Stewart, Manual of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Nagel, Handbuch der Physiologie.

FIRST YEAR (Second half)

HOURS

Laboratory experiments. Professor CANNON, Drs. MARTIN, and <i>Daily.</i>	160
Quizzes (14). <i>One hour Saturdays.</i>	14
Written tests (5). <i>One hour Mondays.</i>	5
Lectures (90). Professor CANNON, and Drs. MARTIN and	90
Special demonstrations (30). Professor CANNON, and Drs.	and
	15
Discussion of Theses (30).	22
Thesis. Written by each student from the original sources.	
Reading of investigations. The reading of investigations and the discus- sion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the professor in charge.

II. *Comparative Physiology of Muscle.* PROFESSOR PORTER. Three hours weekly during February and March.

III. *Physiological Conference.* PROFESSOR PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see p. 57.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*
LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry.*

HARRY W. GOODALL, M.D., *Assistant in Biological Chemistry.*

FRED F. FLANDERS, A.M., *Assistant in Biological Chemistry.*

CHESTER J. FARMER, *Assistant in Biological Chemistry.*

FRANCIS B. KINGSBURY, A.B., *Teaching Fellow in Biological Chemistry.*

ARCHIBALD B. MACALLUM, M.D., *Austin Teaching Fellow in Biological Chemistry.*

FIRST YEAR

Biochemistry I. — The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, by Dr. HENDERSON and Mr. FARMER; and of the general principles and more important facts of physiological chemistry, by Professor FOLIN and Dr. GOODALL.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

FIRST YEAR (Second half)

HOURS

Lectures. Professor FOLIN and Asst. Professor HENDERSON. <i>One hour five times a week.</i>	80
Laboratory work. Professor FOLIN, Asst. Professor HENDERSON, Dr. MACALLUM, Mr. FARMER, and Mr. KINGSBURY. <i>Two and one-half hours five times a week.</i>	200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Assistant Professor of Bacteriology.*

LANGDON FROTHINGHAM, M.D.V., *Instructor in Bacteriology.*

CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*

ARTHUR M. WORTHINGTON, M.D., *Assistant in Bacteriology.*

EUGENE E. EVERETT, M.D., *Assistant in Bacteriology.*

HAROLD W. DANA, M.D., *Assistant in Bacteriology.*

FREDERIC A. STANWOOD, M.D., *Assistant in Bacteriology.*

CLEAVELAND FLOYD, M.D., *Austin Teaching Fellow in Bacteriology.*

Second Year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Muir and Ritchie. Hiss and Zinsser. Park.

Collateral Reading. — Heim. Migula. Kolle and Wassermann. Chapin.

	SECOND YEAR	HOURS
Lectures. Professor ERNST.	<i>Daily, except Saturdays, during October and November.</i>	40
Laboratory work. Professor ERNST, and Drs. FROTHINGHAM, PAGE, PERRY, WORTHINGTON, and EVERETT.	<i>Two to three hours daily during October and November.</i>	120

Pathology.

WILLIAM T. COUNCILMAN, M.D., LL.D.,	<i>Shattuck Professor of Pathological Anatomy.</i>
HOWARD T. KARSNER, M.D.,	<i>Assistant Professor of Pathology.</i>
FRANK B. MALLORY, M.D.,	<i>Associate Professor of Pathology.</i>
JAMES H. WRIGHT, M.D., S.D.,	<i>Assistant Professor of Pathology.</i>
ERNEST E. TYZZER, M.D.,	<i>Assistant Professor of Pathology.</i>
FREDERICK H. VERHOEFF, M.D.,	<i>Instructor in Ophthalmic Pathology.</i>
HANS BARKAN, M.D.,	<i>Instructor in Pathology.</i>
ALBERT F. BORETTI, M.D.,	<i>Assistant in Pathology.</i>

Second Year.—The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. Lectures and laboratory talks are given daily.

In the forenoons of the second and third weeks of December, Professor T. SMITH gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

(a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)

(b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Ziegler, General and Special Pathology. Stengel, A Text-book of Pathology. Mallory and Wright, Pathological Technique.

Collateral Reading. — Adami, Principles of Pathology. Aschoff, Pathologische Anatomie. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, The Animal Parasites of Man.

SECOND YEAR

HOURS

Lectures. Professor COUNCILMAN. *Daily for fourteen weeks, October, November, December (first week only), and January.* 84

Lectures. Professor T. SMITH. *One hour daily, second and third weeks of December.* 12

Laboratory work. Professor COUNCILMAN and Dr. BARKAN. *Three hours daily during the forenoons of October, November, December (first week only), and January.* 252

Demonstrations and laboratory work. Professor T. SMITH. *Two hours daily, second and third weeks of December.* 24

Neuropathology. Professor SOUTHARD. *Afternoons in December.* 45

Surgical Pathology. Assistant Professor NICHOLS. *Afternoons in January.* 60

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in

sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

THEOBALD SMITH, M.D., LL.D., S.D., *George Fabyan Professor of Comparative Pathology.*

— — —, *Assistant in Medical Zoölogy.*

MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology.*

J. HOWARD BROWN, S.M., *Austin Teaching Fellow in Comparative Pathology.*

Second Year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 59.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures. Professor T. SMITH. (H.M.S.) *One hour daily, second and third weeks of January.* 12

Demonstrations and laboratory work. Professor T. SMITH, Assistant Professor TYZZER, and Dr. FABYAN. *Two hours daily, second and third weeks in December.* 24

Neuropathology

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

F. ROBERTSON SIMS, M.D., *Assistant in Neuropathology.*

SAMUEL T. ORTON, M.D., *Assistant in Neuropathology.*

JAMES B. AYER, M.D., *Assistant in Neuropathology.*

Second Year. — The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the pathological physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and

for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 60.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Collateral Reading.—Jakob, Atlas. Gowers, Diseases of the Nervous System. Diefendorf, Kraepelin's Psychiatry. Modern Clinical Medicine: The Nervous System. Quain, Neurology (new edition). Campbell, Localization of Cerebral Function. Recent volumes of *Brain*. In *German*: Kraepelin, Psychiatrie. Oppenheim, Neurologie. Bechterew, Funktionen der Nervencentra. Monakow, Gehirnpathologie. In *French*: Azoulay, Ramon y Cajal's Histologie. Van Gehuchten, Les centres nerveux: Anatomie et neuropathologie.

SECOND YEAR

HOURS

Lectures. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	12
Laboratory work. Professor SOUTHARD and assistants. <i>Two hours daily, afternoons in December.</i>	24
Written and practical tests. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	9
Demonstrations at State institutions, voluntary. Special.	

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene.*

ARTHUR I. KENDALL, Ph.D., Dr.P.H., *Instructor in Preventive Medicine and Hygiene.*

HAROLD L. AMOSS, M.D., *Assistant in Preventive Medicine and Hygiene.*

FREDERICK M. ALLEN, M.D., *Charles Follen Folsom Teaching Fellow in Hygiene.*

EDWIN H. SCHORER, M.D., *Fellow in Preventive Medicine and Hygiene.*

Second Year.—The instruction consists of lectures and demonstrations.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 60.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Rosenau, Disinfection and Disinfectants.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor ROSENAU and assistants. *Three times a week, second half-year.* 48

Materia Medica and Therapeutics

FRANZ PFAFF, M.D., *Professor of Pharmacology and Therapeutics.*

LOUIS NELSON, M.D., *Instructor in Pharmacology.*

DAVID L. WILLIAMS, M.D., *Assistant in Materia Medica.*

Second and Third Years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological action of drugs, and their practical value as remedies.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 60.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR

HOURS

Pharmacology lectures. Professor PFAFF. *Twice a week, February to May inclusive.* 32

Materia Medica lectures. Dr. NELSON. *Once a week, February to May inclusive.* 16

Optional course in practical pharmacy. Drs. NELSON and WILLIAMS. *Two hours once a week during April and May.*

THIRD YEAR

HOURS

Lectures on Therapeutics. Professor PFAFF. *Once a week, first half-year.* 16

Recitation in Pharmacology and Therapeutics. Dr. NELSON. *Once a week, first half-year.*

The Theory and Practice of Physic

HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

ELLIOTT P. JOSLIN, M.D., *Instructor in the Theory and Practice of Physic.*

ARTHUR K. STONE, M.D., *Instructor in the Theory and Practice of Physic.*

HENRY F. HEWES, M.D., *Instructor in the Theory and Practice of Physic.*

GEORGE S. C. BADGER, M.D., *Instructor in the Theory and Practice of Physic.*

JOSEPH H. PRATT, M.D., *Instructor in the Theory and Practice of Physic.*

THOMAS F. LEEN, M.D., *Assistant in the Theory and Practice of Physic.*

FRANCIS W. PALFREY, M.D., *Alumni Assistant in the Theory and Practice of Physic.*

WILLIAM B. ROBBINS, M.D., *Assistant in the Theory and Practice of Physic.*

CHARLES L. OVERLANDER, M.D., *Assistant in the Theory and Practice of Physic.*

CHANNING FROTHINGHAM, Jr., M.D., *Assistant in the Theory and Practice of Physic.*

ROGER I. LEE, M.D., *Assistant in the Theory and Practice of Physic.*

The instruction given by the Department of the Theory and Practice of Physic consists of both clinical and laboratory work. The clinical work is given by means of lectures, clinical lectures and clinical exercises at the Massachusetts General Hospital, the Boston City Hospital, the Carney Hospital, or the House of the Good Samaritan. The laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research. Both kinds of work are offered to both undergraduate and graduate students.

Second and Third Years. — Lectures. Lectures on selected topics are given at the Medical School.

Clinical Lectures.—Clinical lectures in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Clinical Exercises.—Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 00.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—Osler, Practice of Medicine. Von Leube, Diagnose der Inneren Krankheiten. Emerson, Clinical Diagnosis. Sahli, Diagnostic Methods.

Collateral Reading.—Nothnagel, Specielle Pathologie und Therapie. Allbutt and Rolleston, System of Medicine. Osler, Modern Medicine. Krehl, Principles of Clinical Pathology. Schwalbe, Therapeutische Technik. Gould, Medical Dictionary. Forchheimer, Prophylaxis and Treatment of Internal Diseases.

SECOND YEAR		HOURS
Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, second half-year.</i>	32
Clinical lectures. Dr. BADGER. (M.G.H.)	<i>Once a week, second half-year.</i>	16
Exercises in sections. Drs. JOSLIN (B.C.H.), BADGER and PALFREY (M.G.H.), STONE and LEE (M.G.H. and S.H.).	<i>Twice a week, second half-year, for each student.</i>	48
Laboratory exercises. Dr. HEWES, assisted by Drs. OVERLANDER, ROBBINS, and —.	<i>Five times a week, second half-year.</i>	160

THIRD YEAR		
Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, first half-year.</i>	32
Clinical lectures. Dr. PRATT. (M.G.H.)	<i>Once a week, first half-year; once a week, second half-year.</i>	32

	HOURS
Clinical lectures. Dr. HEWES. (M.G.H.) <i>Once a week, first half-year.</i>	16
Clinical lectures. Drs. STONE, LORD, or LEE. (M.G.H.) <i>Once a week, first half-year.</i>	16
Exercises in sections. Drs. STONE and LEE. (M.G.H. and S.H.) <i>First half-year. Twelve exercises for each student.</i>	18

Clinical Medicine

- FREDERICK C. SHATTUCK, M.D., LL.D., *Jackson Professor of Clinical Medicine.*
- GEORGE G. SEARS, M.D., *Associate Professor of Clinical Medicine.*
- RICHARD C. CABOT, M.D., *Assistant Professor of Clinical Medicine.*
- HERMAN F. VICKERY, M.D., *Instructor in Clinical Medicine.*
- HENRY JACKSON, M.D., *Instructor in Clinical Medicine.*
- WILLIAM H. SMITH, M.D., *Instructor in Clinical Medicine.*
- FRANKLIN W. WHITE, M.D., *Instructor in Clinical Medicine.*
- WILLIAM H. ROBEY, JR., M.D., *Instructor in Clinical Medicine.*
- EDWIN A. LOCKE, M.D., *Instructor in Clinical Medicine.*
- FREDERICK T. LORD, M.D., *Instructor in Clinical Medicine.*
- G. CHEEVER SHATTUCK, M.D., *Assistant in Clinical Medicine.*
- GERALD BLAKE, M.D., *Alumni Assistant in Clinical Medicine.*
- CHARLES H. LAWRENCE, JR., M.D., *Alumni Assistant in Clinical Medicine.*

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second Year.—The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week. Credit is given for the character of the work done in this course on the basis of twenty-five per cent. of the total mark in Clinical Medicine.

Clinical instruction for the entire class, twice a week, in diagnostic methods, diagnosis, and treatment.

Third Year.—Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections, in the ward and out-patient departments. Each student attends thirty-two exercises during the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 62.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Sahli, Diagnostic Methods. Cabot, Physical Diagnosis. Forchheimer, Prophylaxis and Treatment of Internal Disease.

Collateral Reading. — Allbutt, System of Medicine. Osler's Modern Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Butler, Diagnostics of Internal Medicine. Le Febvre, Physical Diagnosis. Simon, Clinical Diagnosis. Emerson, Clinical Diagnosis. Cabot's Differential Diagnosis.

SECOND YEAR

HOURS

Clinics. Professor SHATTUCK (M.G.H.) and Dr. H. JACKSON (B.C.H.)
Twice a week, second half-year. 32

Physical Diagnosis. Drs. LORD and G. CHEEVER SHATTUCK (M.G.H.)
and Dr. ROBEY (B.C.H.). *Two exercises a week, second half-year,*
for each student. 48

THIRD YEAR

Clinics. Professor SHATTUCK. (M.G.H.) *Twice a week, first half-year;*
once a week, second half-year. 48

Associate Professor SEARS. (B.C.H.) *Twice a week, first half-year;*
once a week, second half-year. 48

Dr. H. JACKSON. (B.C.H.) *Twice a week, second half-year.* 32

Section work. Associate Professor SEARS, Assistant Professor CABOT,
Drs. VICKERY, H. JACKSON, and SMITH. *Thirty-two exercises for*
each student throughout the year. 48

Tropical Medicine

THEOBALD SMITH, M.D., *George Fabyan Professor of Comparative Pathology*, will supervise the instruction in Tropical Medicine. Courses which are intimately related to this field of medicine will be found under Pathology, Bacteriology, and Clinical Medicine.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 64.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Pediatrics

THOMAS MORGAN ROTCH, M.D., *Professor of Pediatrics.*
JOHN H. MCCOLLOM, M.D., S.M., *Professor of Contagious Diseases*
JOHN L. MORSE, M.D., *Associate Professor of Pediatrics.*
MAYNARD LADD, M.D., *Instructor in Pediatrics.*
CHARLES H. DUNN, M.D., *Instructor in Pediatrics.*
HENRY I. BOWDITCH, M.D., *Clinical Instructor in Pediatrics.*
WILLIAM P. LUCAS, M.D., *Assistant in Pediatrics.*
EDWIN H. PLACE, M.D., *Assistant in Pediatrics.*
PHILIP H. SYLVESTER, M.D., *Assistant in Pediatrics.*
FRITZ B. TALBOT, M.D., *Fellow in Pediatrics.*
RICHARD M. SMITH, M.D., *Fellow in Pediatrics.*

Third Year.—Lectures are given on such selected topics as the development and living anatomy and the dietetics of early life, diphtheria, the exanthemata and the gastro-enteric diseases preparatory for the clinical teaching. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital; and the students are required to take an active part in the examination and discussion of the cases. Recitations are held on subjects selected as being best studied in this way, and exercises in case-teaching are given in the latter part of the year preparatory for the examination. Sectional teaching at the bedside both at the Children's and Infants' Hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. The general subject of Pediatrics as connected with contagious diseases is especially explained and illustrated by the resident assistant in Pediatrics. From time to time in the wards of the Children's Hospital the students are given instruction in lumbar puncture and in the clinical laboratory of the hospital in connection with blood cultures and other diagnostic methods. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 64.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book.—Rotch, Pediatrics.

Collateral Reading.—Pfaundler and Schlossmann, *The Diseases of Children.* Morse, *Case Histories in Pediatrics.* Jacobi, *Therapeutics of Infancy and Childhood.* Holt, *Diseases of Infancy and Childhood.* Sachs, *The Nervous Diseases of Children.* Rotch, *The Roentgen Ray in Pediatrics.*

	THIRD YEAR	HOURS
Lectures. Professor ROTCH. (H.M.S.)	<i>Once a week, October 5 to December 21; January 4 to 25; January 30 to February 27; March 19 and 26.</i>	23
Associate Professor MORSE. (H.M.S.)	<i>Once a week, February 5 to March 25.</i>	8
Dr. PLACE. (H.M.S.)	<i>March 5 and 12.</i>	2
Clinical lectures. Professor ROTCH. (Ch.H.)	<i>Once a week, October 6 to January 19.</i>	15
Professor MCCOLLOM. (S.D.B.C.H.)	<i>October, November, December.</i>	8
Associate Professor MORSE. (Infants' Hospital.)	<i>Once a week, January 26 to March 8.</i>	7
Recitations. Associate Professor MORSE. (Infants' Hospital.)	<i>Once a week, March 15 to 29. (H.M.S.)</i>	7
Dr. LADD. (H.M.S.)	<i>Twice a week, May 6 to 14.</i>	4
Case Teaching. Dr. DUNN. (H.M.S.)	<i>Twice a week, April 1 to 9.</i>	4
Associate Professor MORSE. (H.M.S.)	<i>Twice a week, April 22 to 30.</i>	4
Section Teaching. Dr. PLACE. (S.D.B.C.H.)	<i>Twice a week, May 22 to 28.</i>	4
	<i>First half-year. Six exercises for each student.</i>	9
Drs. LADD, DUNN, BOWDITCH, LUCAS, and SYLVESTER. (Ch.H. and I.H.)	<i>Each student attends twenty-one exercises during the year.</i>	31½

Roentgen Ray

WALTER J. DODD, M.D., *Instructor in the Use of the Roentgen Ray.*
 SAMUEL W. ELLSWORTH, M.D., *Assistant in the Use of the Roentgen Ray.*
 PERCY BROWN, M.D., *Assistant in the Use of the Roentgen Ray.*
 ARIAL W. GEORGE, M.D., *Assistant in the Use of the Roentgen Ray.*

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department, and provided arrangements can be made for such instruction with the Instructor in the Use of the Roentgen Ray.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 64.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Surgery

The Department of Surgery is composed of the sub-departments of surgery, clinical surgery, operative surgery, surgical pathology, and genito-urinary surgery.

MAURICE H. RICHARDSON, M.D., *Moseley Professor of Surgery.*
 HARVEY CUSHING, M.D., *Professor of Surgery.*

- PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery.*
- EDWARD H. NICHOLS, M.D., *Assistant Professor of Surgical Pathology and Assistant Professor of Surgery.*
- CHARLES A. PORTER, M.D., *Assistant Professor of Surgery.*
- JOHN B. BLAKE, M.D., *Assistant Professor of Surgery.*
- ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery.*
- HUGH CABOT, M.D., *Instructor in Genito-Urinary Surgery.*
- JAMES G. MUMFORD, M.D., *Instructor in Surgery.*
- HOWARD A. LOTHROP, M.D., *Instructor in Surgery.*
- WILLIAM E. FAULKNER, M.D., *Instructor in Surgery.*
- SAMUEL J. MIXTER, M.D., *Lecturer on Surgery.*
- GEORGE H. MONKS, M.D., M.R.C.S., *Lecturer on Surgery.*
- FRANCIS B. HARRINGTON, M.D., *Lecturer on Surgery.*
- CHARLES L. SCUDDER, M.D., *Lecturer on Surgery.*
- FRED B. LUND, M.D., *Lecturer on Surgery.*
- JAMES S. STONE, M.D., *Assistant in Surgery.*
- ERNEST A. CODMAN, M.D., *Assistant in Surgery.*
- JOSHUA C. HUBBARD, M.D., *Assistant in Surgery.*
- DANIEL F. JONES, M.D., *Assistant in Surgery.*
- LE ROI G. CRANDON, M.D., *Assistant in Surgery.*
- WALTER C. HOWE, M.D., *Assistant in Surgery.*
- CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*
- HORACE BINNEY, M.D., *Assistant in Genito-Urinary Surgery.*
- BETH VINCENT, M.D., *Assistant in Surgery.*
- JOHN HOMANS, M.D., *Assistant in Surgery.*
- J. DELLINGER BARNEY, M.D., *Assistant in Genito-Urinary Surgery.*
- JOHN B. SWIFT, Jr., M.D., *Alumni Assistant in Surgery.*
-

HALSEY B. LODER, M.D., *Austin Teaching Fellow in Surgery.*

Instruction is given by systematic lectures, demonstrations, recitations, and clinical lectures, and by section teaching in the wards and out-patient departments of the hospitals, and in the laboratories.

Second and Third Years.—A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures

are given on surgical technique; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. As early as may be in the second half of the second year, the course in surgical technique is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technique the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. All the students will be assigned to serve one month during the year beginning June 1, at one or other of these hospitals. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals, and also receives instruction in anesthesia. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in genito-urinary surgery is given in the second half of the third year, consisting of sixteen lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 65.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Books recommended. — Lexer-Bevan, General Surgery. Mumford, Practice of Surgery. DaCosta, Modern Surgery. Keen's Surgery (5 volumes). Cheever, Lectures on Surgery. Warren's Surgical Pathology. Rose & Carless, Manual of Surgery. Jacobson & Steward, Operations of Surgery. Binnie, Operative Surgery. Wharton, Minor Surgery and Bandaging. Scudder, Treatment of Fractures. Cotton, Dislocations and Joint Fractures. Mumford, Clinical Talks on Minor Surgery. Crandon, After Treatment. Burrell and Blake, Case Teaching. Watson and Cunningham, Diseases and Surgery of the Genito-Urinary System. Keyes, Surgical Diseases of the Genito-Urinary Organs. White and Martin, Genito-Urinary and Venereal Diseases.

SECOND YEAR

HOURS

- Laboratory course in Surgical Pathology. Assistant Professor NICHOLS. (H.M.S.) *Twenty three-hour exercises during January.* (See Pathology.) 60
- Clinical lectures in connection with the above course. Assistant Professor NICHOLS. (B.C.H.) *Twelve exercises during January.* 12
- Laboratory course in Surgical Technique. Dr. LOTHROP. *Six lectures to the entire class.* 6
Twelve two-hour exercises for each student during second half of second year. 24
- Systematic lectures, demonstrations, and recitations. Professor RICHARDSON, Assistant Professors PORTER, J. B. BLAKE, and GREENOUGH, and Dr. LOTHROP. (H.M.S.) *Four times a week.* 64
- Clinical demonstrations in connection with the above lectures. Professor RICHARDSON, and Assistant Professor PORTER (M.G.H.), and Assistant Professor J. B. BLAKE and Dr. LOTHROP (B.C.H.). *Four times a week.* 64

THIRD YEAR

- Systematic lectures, demonstrations, and recitations. Professor RICHARDSON, Assistant Professors PORTER, J. B. BLAKE, and GREENOUGH, and Dr. LOTHROP. (H.M.S.) *Three times a week, first half-year.* 48
- Clinical demonstrations in connection with above lectures. Professor RICHARDSON (M.G.H.), and Assistant Professors NICHOLS and BLAKE (B.C.H.). *Twice a week, first half-year.* 32
- Clinical lectures. Assistant Professor C. A. PORTER. (M.G.H.) *Once a week, second half-year.* 16
- Assistant Professors NICHOLS and J. B. BLAKE. (B.C.H.) *Once a week, second half-year.* 16
- Clinical exercises in surgical wards in sections. Professor RICHARDSON, and Drs. HARRINGTON, LOTHROP, CODMAN, LUND, and CRANDON. *Each student attends sixteen exercises, first half-year.* 24
- Clinical Lectures. Genito-Urinary Surgery. Assistant Professor PAUL THORNDIKE. (B.C.H.) *Once a week, second half-year.* 16
- Section teaching at the Hospitals. Genito-Urinary Surgery. *Each student attends six exercises, second half-year.* 9
- Case teaching. Assistant Professor J. B. BLAKE. (H.M.S.) *Once a week, beginning February 1.* 12

Orthopedics

EDWARD H. BRADFORD, M.D., *Professor of Orthopedic Surgery.*
 ROBERT W. LOVETT, M.D., *Assistant Professor of Orthopedic Surgery.*
 ELLIOTT G. BRACKETT, M.D., *Instructor in Orthopedics.*
 AUGUSTUS THORNDIKE, M.D., *Instructor in Orthopedics.*
 ROBERT SOUTTER, M.D., *Assistant in Orthopedics.*
 ROBERT B. OSGOOD, M.D., *Assistant in Orthopedics.*

Third Year. — Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachusetts General Hospitals.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 69.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Books recommended. — Thorndike, Orthopedic Surgery. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopädische Chirurgie.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Professor BRADFORD, Assistant Professor LOVETT, and Drs. BRACKETT, A. THORNDIKE, SOUTTER, and OSGOOD. (H. M. S. and Ch. H.) *Three times a week, December and January.* 20

Obstetrics and Gynaecology

CHARLES M. GREEN, M.D., *Professor of Obstetrics and Gynaecology.*
 WILLIAM P. GRAVES, M.D., *Professor of Gynaecology.*
 FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology.*
 MALCOLM STORER, M.D., *Instructor in Gynaecology.*
 ERNEST B. YOUNG, M.D., *Instructor in Gynaecology.*
 HOWARD T. SWAIN, M.D., *Instructor in Obstetrics.*
 LEO V. FRIEDMAN, M.D., *Assistant in Obstetrics.*
 JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*
 NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*
 ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*
 ROBERT M. GREEN, M.D., *Assistant in Gynaecology.*
 ROLAND L. TOPPAN, M.D., *Assistant in Obstetrics and Gynaecology.*

OBSTETRICS

Third Year. — Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 69.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Peterson, The Practice of Obstetrics. Reynolds and Newell, Practical Midwifery. Lusk, The Science and Art of Midwifery. Jellett, Manual of Midwifery.

THIRD YEAR

HOURS

Lectures on the Theory and Practice of Obstetrics. Professor GREEN.	
(H.M.S.) <i>Twice a week.</i>	64
Recitations. Assistant Professor NEWELL. (H.M.S.) <i>Once a week.</i>	32
Conferences. Dr. SWAIN. (H.M.S.) <i>Once a week.</i>	32
Practical instruction in Clinical Obstetrics. Drs. SWAIN, FRIEDMAN, TORBERT, MASON, DENORMANDIE and	Throughout the year.

GYNAECOLOGY

Third Year. — Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 69.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — Burrage, Gynaecological Diagnosis.

Collateral Reading. — Dudley, Principles and Practice of Gynaecology. Hirst, Text-book of Diseases of Women. Davenport, Diseases of Women. Emmet, Principles and Practice. Penrose, Text-book of Diseases of Women. Ashton, Practice of Gynaecology. Kelly, Operative Gynaecology. Webster, Text-book of Diseases of Women.

THIRD YEAR

HOURS

Lectures or recitations. Professors GREEN and GRAVES, Assistant Professor NEWELL, and Drs. STORER and YOUNG. (H.M.S.) *Twice a week, second half-year.* 32

Clinical exercises. Professor GRAVES (F.H. for W.), Dr. STORER (B.D.), and Drs. MASON and R. M. GREEN. (B.C.H.) *In sections, during the second half-year. Each student attends six exercises.* 9

Dermatology and Syphilis

ABNER POST, M.D., *Professor of Syphilis.*

CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology.*

HARVEY P. TOWLE, M.D., *Assistant in Dermatology.*

C. MORTON SMITH, M.D., *Assistant in Syphilis.*

FREDERICK S. BURNS, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year. — A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 70.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Collateral Reading. — Stelwagon. Duhring. Hyde. Robinson. Crocker. Kaposi. v. Ziemssen. Besnier. Van Harlingen. Jackson. Taylor.

THIRD YEAR

HOURS

Lectures, demonstrations, and recitations on diseases of the skin. Professor BOWEN and Dr. TOWLE. (H.M.S.) *Once a week during October and November.* 8

Clinical Dermatology. Professor WHITE. (M.G.H.) *Once a week throughout the year.* 32

Clinical exercises. Drs. TOWLE and BURNS. (M.G.H.) *Each student attends eight exercises, second half-year.* 12

SYPHILIS

Third Year. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR

Lectures. Assistant Professor Post. (H.M.S.)	<i>Once a week, December and January.</i>	8
Clinical lectures. Assistant Professor Post and Dr. SMITH. (B.D.)	<i>Once a week, April and May.</i>	8
Clinical exercises. Assistant Professor Post and Dr. SMITH. (B.D.)	<i>Each student attends six exercises, in sections, second half-year.</i>	9

Neurology and Psychiatry

JAMES J. PUTNAM, M.D., *Professor of Diseases of the Nervous System.*
 PHILIP C. KNAPP, M.D., *Clinical Instructor in Diseases of the Nervous System.*

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

EDWARD COWLES, M.D., LL.D., *Instructor in Mental Diseases.*

HERMAN M. ADLER, M.D., *Instructor in Mental Diseases.*

GEORGE T. TUTTLE, M.D., *Clinical Instructor in Mental Diseases.*

GEORGE A. WATERMAN, M.D., *Assistant in Neurology.*

NEUROLOGY

Second Year. — In the afternoons during December, Professor SOUTHARD gives a course of twelve lectures, twelve laboratory exercises, and three tests consisting of written and practical work. The lectures form an introduction to the course in neurology and psychiatry; they precede and are directly related with the laboratory work which takes up the histology of the infections and the classical degenerations of the nervous system, as well as a brief outline of the pathology of the cerebral cortex. The histology is brought into close relation with the reflexes and other simple clinical signs. A demonstration of these reflexes and signs with their structural correlations is given at the Danvers Insane Hospital.

An optional course, entitled *The Applications of Psychology to Neurology*, is offered in the course of this year.

Third Year. — During the first half-year one exercise a week and during the second half-year two exercises a week are given at the Massachusetts General Hospital. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards. (d) Work in the Case-system. Short

examinations and conferences will be held at intervals during the year. The first half-year is devoted to the study of symptoms in their clinical and anatomical relations (Dr. TAYLOR); the second half-year, to morbid entities with special reference to the functional neuro-psychoses (Dr. PUTNAM). Dr. WALTER E. FERNALD has accepted an invitation from the Faculty to give two or more lectures with illustrations to the third and fourth classes on the subject of feeble-mindedness and its management.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 71.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book.—Putnam and Waterman, *Studies in Neurological Diagnosis*.

Collateral Reading.—Oppenheim, *Diseases of the Nervous System* (latest German edition). Gowers, *Diseases of the Nervous System*. Dana, *Text-book of Nervous Diseases* (latest edition). Herter, *Diagnosis of Nervous Diseases* (latest revised edition). Starr, *Functional and Organic Diseases of the Nervous System*. Purves Stewart, *Diagnosis of Nervous Diseases*. Janet, *The Major Symptoms of Hysteria and Les Néuroses*. Sherrington, *The Integrative Action of the Nervous System*. Church-Peterson's *Nervous and Mental Diseases*. Monakow, *Gehirn-pathologie*. Schmaus und Sacki, *Pathologie des Rückenmarks*. Van Gehuchten, *Les centres nerveux*. *Anatomie normale et elements de neuropathologie*.

SECOND YEAR

HOURS

Lectures. Professor SOUTHARD. <i>One hour daily, afternoons in December.</i> (See Neuropathology.)	12
Laboratory work. Professor SOUTHARD. <i>Two hours daily, afternoons in December.</i> (See Neuropathology.)	24
Written and practical tests. Professor SOUTHARD. <i>Afternoons in December</i> (See Neuropathology.)	9

THIRD YEAR

Lectures, Demonstrations, and Clinical exercises. Professor PUTNAM, and Drs. TAYLOR and WATERMAN. (M.G.H.) <i>Once a week, first half-year; twice a week, second half-year.</i>	48
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PSYCHIATRY

Third Year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Boston Insane Hospital.

Text-books.—Kraepelin, *Psychiatrie* (English translation; Defendorf—Clinical Psychiatry). Clouston, *Clinical Lectures on Mental Diseases*.

Berkley, Mental Diseases. De Fursac, Manual of Psychiatry. White, Outlines of Psychiatry.

Collateral Reading.—Church and Peterson, Nervous and Mental Diseases. James, Psychology. Tuke, Dictionary of Psychological Medicine. Baldwin, Dictionary of Philosophy and Psychology. Hall, Adolescence. Sherrington, Integrative Action of the Nervous System. Morat, Physiology of the Nervous System.

THIRD YEAR.

Lectures. Dr. COWLES. (H.M.S.) *Once a week, second half-year.* 16
Clinical exercises. Dr. COWLES. (B.S.H.) *At stated intervals.* 3-4

Ophthalmology

MYLES STANDISH, M.D., S.D., *Williams Professor of Ophthalmology.*
ALEXANDER QUACKENBOSS, M.D., *Instructor in Ophthalmology.*
HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*
EDMUND W. CLAP, M.D., *Instructor in Ophthalmology.*
FRED M. SPALDING, M.D., *Instructor in Ophthalmology.*
WILLIAM N. SOUTER, M.D., *Fellow in Ophthalmology.*

Third Year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 72.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—Weeks. Fuchs. DeSchweinitz.

Collateral Reading.—Loring, On the Ophthalmoscope. Landolt, Refraction and Accommodation. Norris and Oliver, System of Diseases of the Eye. Haab, Atlas of the External Diseases of the Eye.

THIRD YEAR

HOURS

Lectures. Professor STANDISH. (H.M.S.) *Twice a week, in October and November.* 16
Clinical exercises. Drs. QUACKENBOSS, HASKELL, CLAP, and SPALDING. (E. and E.I.) *In sections, first half-year. Twelve exercises for each student.* 18

Otology

CLARENCE J. BLAKE, M.D., *Walter Augustus Lecompte Professor of Otology.*
EUGENE A. CROCKETT, M.D., *Instructor in Otology.*
PHILIP HAMMOND, M.D., *Instructor in Otology.*

WILLIAM F. KNOWLES, M.D., *Assistant in Otology.*

ALFRED M. AMADON, M.D., *Assistant in Otology.*

HARRIS P. MOSHER, M.D., *Assistant in Otology.*

DAVID H. WALKER, M.D., *Assistant in Otology.*

CALVIN B. FAUNCE, Jr., M.D., *Assistant in Otology.*

Third Year.—Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 72.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books.—Brühl and Politzer. Grey. Yearsley. Bacon.

Collateral Reading.—Poltizer, *Text-book of Diseases of the Ear*; 4th ed., translated by Ballin and Heller. Blake and Reik.

THIRD YEAR

HOURS

Lectures. Professor BLAKE. (H.M.S.) *Twice a week, February and March; once a week, April and May.* 24

Clinical exercises. (E. and E.I.) *Every student attends six exercises, second half-year.* 9

Laryngology and Rhinology

ALGERNON COOLIDGE, Jr., M.D., *Professor of Laryngology.*

J. PAYSON CLARK, M.D., *Instructor in Laryngology.*

FREDERIC C. COBB, M.D., *Instructor in Laryngology.*

ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology.*

JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*

HARRIS P. MOSHER, M.D., *Instructor in Laryngology.*

HARRY A. BARNES, M.D., *Assistant in Laryngology.*

GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*

D. CROSBY GREENE, Jr., M.D., *Fellow in Laryngology.*

Third Year.—Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has twenty-four lectures during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 73.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

- Lectures. Professor COOLIDGE, assisted by Drs. GOODALE, MOSHER, and WRIGHT. (H.M.S.) *Once a week, February and March; twice a week, April and May.* 24
- Clinical exercises. Professor COOLIDGE, and Drs. CLARK, BARNES, (M.G.H.), COFFIN (B.C.H.), and COBB (B.D.). *In sections, second half-year. Twelve exercises for each student.* 12

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses and quarter-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before June 1. No changes in electives will be allowed after the final assignments are made.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

ANATOMY.

Anatomy I. Half-courses, afternoons, October and November; February and March.

This is a course in general, applied and surgical anatomy designed to emphasize and explain such parts of general anatomy as are of practical importance. Less important details are studied briefly or omitted altogether, according to their deserts, but ample opportunity is given to the student who desires it to review the chief facts of general anatomy or to pay especial attention to regions in which he is interested.

Instruction is by demonstrations, dissection, the study of frozen sections, and specimens and informal quizzes. The greatest importance is attached to the verification by the student in his own dissection of the facts presented by the instructor.

To enable the course to be satisfactorily adjusted to courses in other departments, a limited number of students may be permitted, on consultation with the instructor, to take one month with the first section and the other month with the second section.

N. B. — No one can take this course who has not passed his first-year anatomy.

COMPARATIVE ANATOMY.

Comparative Anatomy I. Embryology. Half-courses, mornings, afternoons, or all day, second half-year. Assistant Professor LEWIS.

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

In this course sixteen hours per week (at times chosen by the student) are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. Each student will be required to make a detailed study of at least three embryos. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction will be required.

The object of the course is, therefore, to give the student a knowledge of embryology by learning minutely the entire anatomy of three embryos of diverse stages of development, and to teach the methods of embryological research.

In place of a text-book, original publications will be used. At the discretion of the instructor students may have access to the extensive

Embryological Collection and to the collection of models, many of which were made in this laboratory.

Comparative Anatomy 2. Histology. Dr. BREMER. Half-course, second half-year, at hours to be arranged with the instructor.

In this course students will be required to master the principal technical methods used in histology, and to study the differences, developmental and structural, in the various organs of the animals chiefly used in experimental medicine and animal economics. Special groups of organs may be chosen by the student for examination.

Comparative Anatomy 3. Half-course, afternoons, 4-6, October and November. Professor MINOT and Dr. WILLIAMS. Structure and development of the eye, ear, and nasopharynx.

Comparative Anatomy 4. Half-course, afternoons, 4-6, October and November. Professor MINOT and Dr. WILLIAMS. Structure and development of the urogenital system.

Comparative Anatomy 5. Half-course, afternoons, 4-6, December and January. Professor MINOT and Dr. WILLIAMS. Development and histology of the nervous system.

PHYSIOLOGY.

Physiology 1. Half-courses, forenoons, afternoons, or all day, first half-year; afternoons, second half-year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research

laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, the ear, and the upper respiratory tract. Afternoons, except Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of four kinds, including (*a*) instruction in methods of diagnosis depending upon bacteriological procedures; (*b*) instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils; (*c*) instruction in methods of opsonic-index work, with practical application; (*d*) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

Pathology 1. Professor F. B. MALLORY. Half-courses, all day, preferably second half-year.

This course is given in the pathological laboratory of the Boston City Hospital.

The work consists of (*a*) training in the technical methods used in pathology; (*b*) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (*c*) study of the more unusual pathological lesions; (*d*) research work in any line which a student demonstrates his fitness to pursue.

Pathology 2. Assistant Professor J. H. WRIGHT. Half-courses, all day, second half-year.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (*a*) training in the technical methods used in pathology; (*b*) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (*c*) study of the more unusual

pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue. Each course limited to four men.

Pathology 3. Protozoölogy. Assistant Professor E. E. TYZZER. Half courses, afternoons, second half-year.

The first object of the course will be to enable the student to familiarize himself with a number of the more representative types and species of parasitic protozoa. The remainder of the course will consist in work upon a special problem, with the end in view of providing training in the investigation of protozoan infections.

Both experimental and histological methods will be employed. The experiments will necessarily be shaped according to the nature of the problems taken up. The histological work will consist of the morphological study of the parasites and of the changes which they produce in the host. The course is open to a limited number of fourth-year students.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microörganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Medical Zoölogy. Half-course, afternoons, April and May.

This course consists of laboratory exercises and lectures on the various groups of protozoan and higher animal parasites and on insects and arachnids as carriers of infection. Qualified students may choose some special subject for detailed study. Class limited to ten students.

Comparative Pathology 3. Research. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

NEUROPATHOLOGY.

Neuropathology 1. Professor E. E. SOUTHARD. Half-courses, forenoons, afternoons, or all day, throughout the year.

The course is given at the Harvard Medical School. The method of the course will usually involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work. The student will also share in the regular work of the laboratory.

Limited to two during a given month. The instructor should be consulted in advance.

Neuropathology 2. Professor E. E. SOUTHARD and Dr. H. M. ADLER. Half-courses, all day, throughout the year.

The course is given at the Danvers State Hospital. The method of the course will usually involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work. Students will be permitted to attend the daily case-readings of the hospital staff and to work upon selected cases in the wards. Much stress will be laid upon clinicopathological methods in neurology, psychiatry, and allied problems of internal medicine.

Limited to two during a given month. The instructor should be consulted in advance.

PREVENTIVE MEDICINE AND HYGIENE.

Preventive Medicine and Hygiene 1. Half-courses, afternoons, second half-year.

This course will consist in laboratory instruction, sanitary excursions, and, in part, of special research. The laboratory instruction will comprise the analysis of air, soils, water, adulterations of foods, milk, and its relation to the public health, investigations of disinfectants, studies in immunity, vaccination, the transmission of the communicable diseases and epidemiology.

Students must see the instructor in charge before enrolling in this course. Each course limited to ten men.

THERAPEUTICS.

Experimental Pharmacology. Half-course, afternoons, December and January. Dr. LOUIS NELSON, assisted by Dr. D. L. WILLIAMS.

This is a laboratory course, and will consist of a series of experiments demonstrating the actions of the more important drugs upon the lower animals and will include a consideration of the therapeutic uses of the

drugs studied. Adequate facilities will be provided for performing selected experiments, with the end in view of studying the effects of drugs on the circulation, respiration, gastro-intestinal tract, kidneys, etc. The students taking this course will be expected to preserve their records in a suitable laboratory book and make careful notes of their deductions from the experiments performed. Quizzes will be frequently held on the pharmacology and therapeutics of the drugs studied and some practice in prescription writing given.

THEORY AND PRACTICE OF PHYSIC.

Theory and Practice 1. Half-courses, all day, throughout the year. **

These courses will be given at the Massachusetts General Hospital. Each half-course of one month is limited to four students. This work, given in the wards and laboratory of the Massachusetts General Hospital, offers the student opportunity to make thorough study of selected medical cases, both by clinical and by laboratory methods, and to follow the progress of these cases from day to day until their discharge or until the end of the course. In addition to his own cases each student will be given opportunity to examine and to attend demonstrations upon the cases of his fellow students and to observe the general conduct of the wards. As occasion offers he will be enabled to see aspirations, lumbar punctures, and other such procedures, as well as operations upon such patients as are transferred to the surgical services. Attendance at autopsies will constitute a part of the work. These courses will be given under the supervision of Dr. PALFREY.

Theory and Practice 2. Half-courses, all day, throughout the year. **

This work will be given at the Carney Hospital, and in the laboratory of the Department at the Medical School. Each half-course of one month is limited to four students. During the forenoons two students will alternate between the medical wards and the out-patient department of the Carney Hospital. The work there will consist in a consecutive study of ambulatory and ward patients with the application of appropriate laboratory methods, and offers the same opportunities of study as are described above under Theory and Practice 1. There will be also special opportunity for the medical observation of surgical cases before and after operation. During the afternoons the students will work in the laboratory of the Department at the Medical School. In the laboratory the students will follow the course of experimental disease in animals by clinical laboratory methods, and will study the pathology of lesions so produced. There will also be an opportunity for the continuation of more complicated laboratory procedures for which the hospital laboratory does not furnish facilities.

** These courses will be repeated only the number of months required to accommodate the applicants at the rate of four per month.

These courses will be given under the supervision of Professor CHRISTIAN, assisted by Drs. LEEN and CHANNING FROTHINGHAM, Jr.

Theory and Practice 3. Half-courses, all day, throughout the year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. J. H. PRATT, with whom special arrangements for the course must be made.

Theory and Practice 4. Half-courses, afternoons, or all day, throughout the year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. CHANNING FROTHINGHAM, Jr., with whom special arrangements for the course must be made. The work will consist of investigation by means of animal experimentation with the study of pathological changes produced in various ways.

Theory and Practice 5. Half-courses, forenoons, or all day, beginning October 1st.†

These courses will be given at the Massachusetts General Hospital and in the laboratory of the Department at the Medical School, and will consist of instruction in special methods of study of clinical cases, and practice in the application of these methods of clinical investigation to hospital patients. The methods which will be studied are chiefly those of chemical clinical investigation. These courses will be given under the direction of Dr. H. F. HEWES, with whom special arrangements for the course must be made.

CLINICAL MEDICINE.

Clinical Medicine 1. Half-courses, all day, throughout the year.

Instruction in Clinical Medicine will be given during the fourth year as follows :

1. OUT-PATIENT WORK.
2. WARD WORK.
3. TUBERCULOSIS.
4. CLINICO-PATHOLOGY.
5. PRACTICAL THERAPEUTICS.
6. DISEASES OF METABOLISM.

1. Each student will be assigned to an out-patient clinic, either at the Boston City or the Massachusetts General Hospital, where he will act as assistant to the physician on duty. In this clinic he will spend each morning from 9 to 1 or until he has finished the work allotted to him. His work will be under the supervision of a member of the department, who will demonstrate selected cases, from the clinic, daily.

† Students taking these courses may continue their work during other months of the first half-year, but no student may begin these courses later than October 1st.

2. Each student will be assigned to a section, which will meet on one afternoon in the week in the west medical wards of the Massachusetts General Hospital, and will go on another afternoon to the Long Island Hospital. Cases will be assigned for study, and reports will be required from time to time. A member of the department will be present at these exercises to assist in the study of cases.

3. One afternoon each week will be spent in the study of tuberculosis. Sections will be taken by Dr. E. A. LOCKE to the Municipal Hospital, Mattapan.

4. One exercise in Clinico-pathology will be given each week by a member of the department, conjointly with a member of the Pathological Department, in which the clinical history and examination of the case will be compared with the autopsy findings.

5. One hour each week will be devoted to Practical Therapeutics. The various methods used in treatment of disease will be illustrated in the west medical wards.

6. One afternoon each week will be devoted to the study of diseases of metabolism under Dr. FRANKLIN W. WHITE at the Boston City Hospital.

Students will be marked upon four written cases, two each from their out-patient and ward work. Each case will be marked on a scale of 20 per cent. A mark on the scale of 20 per cent will be given upon the tuberculosis work.

TABULAR VIEW

Hour.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
A.M. 9-1	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.
P.M. 3-5	Wards 16 and 31 at M.G.H. or ward visit at Long Island.	Tubercu- losis exercise, Municipal Hospital, Mattapan.	Metabolic diseases, Boston City Hospital.	Wards 16 and 31 at M.G.H. or ward visit at Long Island.	Practical Therapeutics, Wards 16 and 31 at M.G.H. Clinico- pathology, Autopsy- room, M.G.H.	

TROPICAL MEDICINE.

A course in Medical Zoölogy may be found under Comparative Pathology 2.

A course in Protozoölogy may be found under Pathology 3.

Courses in the Bacteriology of Tropical Diseases may be obtained by special arrangement.

ROENTGEN RAY.

Roentgen Ray 1. Half-courses, all day, throughout the year.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 9 A.M. to 12 M. at the Massachusetts General Hospital and Carney Hospital, Drs. WALTER J. DODD and PERCY BROWN. Afternoons from 3 to 5 P.M. at the Children's Hospital, Dr. ARIAL W. GEORGE.

Roentgen Ray 2. Quarter-courses, mornings, throughout the year.

This course is practically the same as that given in the mornings in the above course.

PEDIATRICS.

Pediatrics 1. Half-courses, all day, throughout the year.

The work will consist of clinical lectures in the wards and out-patient departments of the Children's Hospital, of the Infants' Hospital and of the Massachusetts General Hospital, in the contagious wards of the South Department of the Boston City Hospital, and at the Burroughs Place Dispensary. The students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be taken up with teaching in the wards and out-patient departments of the Children's, Infants' and Massachusetts General Hospitals, and with special instruction in cases of early tuberculosis at the Burroughs Place Dispensary. There will also be given two lectures on the significance of the ear in early life by Dr. CROCKETT in the wards of the Infants' Hospital.

The whole section will spend four hours a week at the South Department, where instruction will be given by Professor MCCOLLOM and Dr. PLACE. In this course instruction in general Pediatrics, as connected with contagious diseases, will be given. Whenever possible the technique of intubation will be shown. Dr. GEORGE will give practical instruction by means of Roentgen plates in the normal development of early life and in the more important diseased conditions. Dr. LUCAS will, by special arrangement, take the class to a model farm, where everything practical in connection with the milk supply for infants and young children will be taught. In connection with this Dr. ROTCH will give practi-

cal instruction in a research milk laboratory, in the writing of prescriptions and in the routine of laboratory work. Each student will have assigned to him a case in the wards of the Children's Hospital for the purpose of making a study of that especial disease, and he will be required to look up a large number of cases of that disease in the hospital records and to make a report in connection with them. Each student will also have cases assigned to him on two afternoons of each week, when in the early part of the afternoon instruction in physical examination will be given by the various instructors and assistants, and in the latter part of the afternoon these cases will be discussed with Dr. ROTCH or Dr. MORSE. The examination for the degree will be an oral one held by the Professor of Pediatrics.

DRS. LADD, DUNN, BOWDITCH, LUCAS, SYLVESTER, and TALBOT will also take part in the ward instruction of the students and in the instruction given in the out-patient clinics.

SURGERY.

The electives offered by the Department of Surgery consist of half-courses (occupying the whole day for one month or the mornings of two months) and quarter-courses (either mornings or afternoons for one month). They are so arranged that they may be themselves combined in different groups or taken in combination with quarter-courses offered by other departments. No student will be permitted to take more than four half-courses in surgery without special permission of the head of the department.

1	2	3	4	5	6	7	8	9
All day 1 month. B.C.H. Relief. Dresser. Practical Surgery. Oct. to May.	Forenoons 1 month. M.G.H. Observation. Oct. to May.	Forenoons. 1 month. B.C.H. Voluntary Assistant. Oct., Nov., Feb., Mar.	Afternoons. 1 month. Operative Surgery. H.M.S. Dec., Jan., Apr., May.	Forenoons. 1 month. B.C.H. G. U. Surgery. Thorndike Oct. to May.	Forenoons. 1 month. M.G.H. G. U. Surgery. Cabot. Oct. to Jan.	All day. 1 month. B.C.H. Laboratory Surgical Pathology. Nichols and Loder. Nov., Dec., Feb., Mar. 2 men only.	Afternoons. 1 month. Children's Hospital. Wards and O.P.D. Oct., Nov., Feb., Mar.	Forenoons. 2 months. M.G.H. Clinical Surgical Pathology. Oct. to May.
Half-course.	Quarter-course.	Quarter-course.	Quarter-course.	Quarter-course.	Quarter-course.	Half-course.	Quarter-course.	Half-course.

Surgery 1. Practical Work in Surgery. Half-courses, all day, for one month, throughout the year. Boston City Hospital and Relief Station.

The student will be assigned as a "dresser" and will be under the hospital administration. He will be given opportunity to take histories, make examinations and diagnoses, perform minor surgical operations, make dressings, assist at operations, and administer anesthesia. He will obtain abundant experience in traumatic surgery, fractures and emergency cases, and will follow the after-care and convalescence of such cases as come under his charge. He will receive instruction and will be examined from time to time in the performance of his duties by the instructor.

Surgery 2. Observation of Surgical Cases. Quarter-courses, forenoons, for one month, throughout the year. Massachusetts General Hospital.

The student will be given opportunity to study the surgical material of the hospital. Instruction will be given in case-taking, examination of patients, diagnosis, surgical treatment, and the after-care of surgical patients. Laboratory and X-ray methods of diagnosis will be demonstrated. Operations on cases previously examined by the class will be attended and the pathological material obtained from operations and autopsies will be studied. Collateral reading on surgical subjects will be required.

No student will be allowed to repeat this course except with the special permission of the head of the department.

Surgery 3. Quarter-course, forenoons, for one month, given in October, November, February and March. Boston City Hospital.

The student will be assigned to the first surgical service of the Boston City Hospital as a "voluntary assistant" and will be under the hospital administration. He will be given practical work for two hours each morning in the wards and operating rooms, and he will be given instruction in the subsequent two hours on special illustrative cases. He will be obliged to study a selected group of cases, consult the literature on that subject and prepare a brief thesis under the supervision of the instructor.

Surgery 4. Operative Surgery. Quarter-course, afternoons, for one month, December, January, April and May. Dr. G. H. MONKS and assistants. Harvard Medical School, Laboratory of Operative Surgery and Laboratory of Surgical Research.

Instruction will be given by lecture and by demonstration on the cadaver in the classical and important operations and operative procedures,

which will then be performed by the student under the supervision of the instructor. An extra charge will be made for material used in this course.

Surgery 5. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, throughout the year. Assistant Professor PAUL THORNDIKE. Boston City Hospital.

Instruction will consist of ward work, taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases and seeing the end results. Conferences with the students will be held from time to time.

Surgery 6. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, October to January, inclusive. Dr. HUGH CABOT. Massachusetts General Hospital.

The student will be assigned as assistant in the clinic and will take part in the routine work, case-taking, examination of patients, diagnosis and treatment. Operations and the after-care of major operative cases will be followed in the wards. Instruction will be given in cystoscopy and in laboratory methods of diagnosis. (Courses 5 and 6 may be taken together as a half-course in Genito-Urinary Surgery.)

Surgery 7. Half-courses, all day except Saturdays and Sundays, for one month, November, December, February and March. Assistant Professor E. H. NICHOLS and Dr. H. B. LODER. Boston City Hospital and Laboratory of Surgical Pathology.

This course will include ward visits, operations, etherization, microscopy and examination of pathological specimens from operations at the Boston City Hospital. The afternoons will be spent at the Laboratory of Surgical Pathology at the Harvard Medical School. The instruction will include experimental operations along pathological lines suggested by the instructors, with compilation of literature and interpretation of operative results. Limited to two men. Suitable students will be permitted to repeat the course. With the special permission of the instructor this course may be taken by two additional men as a quarter-course, occupying the afternoons of one month.

Surgery 8. Quarter-courses, afternoons, for one month, October, November, February and March. Dr. JAMES S. STONE and assistants. Children's Hospital.

The general surgical diseases of children, fractures, infections, hernia, congenital malformations, etc. The student will be assigned cases in the surgical out-patient department and in the wards of the hospital for examination and diagnosis. Treatment will be discussed with the instructor. Opportunity will be given to qualified students to do practical

work as dressers, Monday, Tuesday, Wednesday and Saturday afternoons in the out-patient department; Thursday and Friday afternoons the class will meet in the wards and operating rooms of the hospital.

Surgery 9. Clinical Surgical Pathology. Half-courses, forenoons, for two months, throughout the year. Dr. W. F. WHITNEY. Massachusetts General Hospital.

The course will be devoted to the study of pathological specimens from the surgical clinic, with especial reference to the use of the microscope in immediate diagnosis. Opportunity will be offered for the systematic study of some particular line of cases, both clinically and pathologically. The work will be supplemented with conferences and demonstrations in the Warren Museum. Each student will be expected to supply himself with a microscope.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Half-courses, afternoons, throughout the year.

The fourth-year elective course is planned to continue the third-year required course, and is suited to those who have had some acquaintance with orthopedic surgery. The exercises are clinical combined with practical work in the out-patient orthopedic clinics and in the in-service of the Children's Hospital and in the in-service of the Massachusetts General Hospital. The instruction is given daily each afternoon in the week, and is so arranged that opportunities are given for the examination of cases, with systematic note taking, followed by instruction successively in symptoms, diagnosis, the principles and details of treatment, including instruction in the common operations of orthopedic surgery.

Each course limited to five men.

Orthopedic Surgery 2. Quarter-course, afternoons, October, December, February and April.

Full courses are offered for those who desire and are qualified for more complete instruction. The large amount of clinical material under the direction of the department gives ample opportunity for study and investigation.

Each course limited to four men.

OBSTETRICS AND GYNAECOLOGY.

Obstetrics and Gynaecology 1. Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge

at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the first half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor GREEN (Oct. to Jan.) and Assistant Professor NEWELL (Feb. to May), assisted by Drs. YOUNG, MASON, and R. M. GREEN in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, and by Professor GRAVES at the Free Hospital for Women, Brookline. These clinics afford ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be required to study, and report on, pathological specimens removed by operation, under the supervision of Professor MALLORY or Professor GRAVES.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

DERMATOLOGY AND SYPHILIS.

Dermatology and Syphilis 1. Half-courses, forenoons, December, January, February and March.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique. Students electing Course 1 or 2 are strongly recommended to elect Course 3.

Dermatology and Syphilis 2. Quarter-courses, forenoons, December, January, February and March.

The work in this course will be the same as in Course 1, with the exception that it extends over one month instead of two.

Dermatology and Syphilis 3. Quarter-courses, afternoons, in January and February.

This course consists of microscopical work and is given on five afternoons at the Harvard Medical School. Students electing this course will be trained in microscopical technique and in the histological study of the commoner diseases of the skin.

Dermatology and Syphilis 4. Half-course, afternoons, in January and February.

This course is similar to Dermatology 3.

NEUROLOGY AND PSYCHIATRY.

Neurology and Psychiatry 1. Half-courses, forenoons, throughout the year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows:—

- (1) Daily systematic conferences on neurological topics.
- (2) History-taking, and personal examination of patients at the out-patient departments of the Massachusetts General and Boston City Hospitals.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.
- (5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, *e. g.*, Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

The instruction in psychiatry will be as follows:—

- (1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.
- (2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff at which there is a careful discussion of every case on its

admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.

(3) Clinical instruction and demonstrations at the Boston State Hospital one forenoon in each week during October and November, for all electing this course. Also an individual case will be assigned to be reported and discussed at the regular evening conference during the year.

OPHTHALMOLOGY.

Ophthalmology 1. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital.

Ophthalmology 2. Quarter-course, forenoons, in February.

This course will be devoted to instruction in the use of the ophthalmoscope.

OTOLOGY.

Otology 1. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to clinical instruction. Each course limited to three men.

Otology 2. Otoscopy and Diagnosis. Drs. D. H. WALKER and A. M. AMADON. Quarter-courses, forenoons, November, December, February or March.

This course will be given at the Massachusetts Charitable Eye and Ear Infirmary. The student will be instructed in the objective examination of the ear, in making hearing tests and in the determination of disturbances of equilibration. He will be given an opportunity to make diagnoses in a great variety of cases. Each course limited to three men.

Otology 3. Histology and Pathology of the ear. Dr. A. M. AMADON. Quarter-course, mornings in January, for students who have taken either Course 1 or 2.

This course will be given at the Medical School. Instruction will consist of directed reading, illustrated by specimens, and in laboratory work under the personal supervision of the instructor. Ability to read German is necessary. Each course limited to three men.

LARYNGOLOGY.

Laryngology 1. Half-courses, forenoons, throughout the year.

The forenoon half-courses are held daily at the Massachusetts General Hospital, and are chiefly clinical in character. In addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Laryngology 2. Quarter-courses, mornings, second half-year.

This course is similar to Laryngology 1.

Laryngology 3. Pathology of the Nose and Throat. Dr. JOSEPH L. GOODALE and HARRY A. BARNES. Quarter-course given in March. Daily, afternoons, except Saturdays, in the Pathological Building of the Harvard Medical School.

The course is designed to afford students a practical acquaintance with the characteristic histological alterations in the more important diseases of the nose and throat. Sections are stained and mounted by the student and retained by him as a collection to serve as a basis for the translation of clinical descriptive terms into their histological equivalents. The histological material is selected and prepared with special reference to clinical diagnosis and treatment. In connection with this course a student should have taken Laryngology 1.

EXAMINATIONS

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The *Mid-Year* and *June examinations* are for those only who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for those only who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows :—

First Year.—Anatomy* (3 hrs.), Histology and Embryology* (3 hrs.), Physiology (3 hrs.), Biological Chemistry (3 hrs.).

Second Year.—Bacteriology* (1 hr.), Pathology* (2 hrs. written, 1 hr. practical), Preventive Medicine and Hygiene (1 hr.).

Third Year.—Materia Medica and Therapeutics* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical, as follows: Surgery, 15 min.; Orthopedic Surgery, 15 min.; Surgical Technique, 15 min.; Surgical Pathology, 15 min., taken in second year), Clinical Surgery (1 hr. written, 1 hr. practical, as follows: Clinical Surgery, 45 min.; Genito-Urinary Surgery, 15 min.), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth Year.—The nature of the examinations is determined by each department. The student's credit is based on his daily written record of work, and on a practical or written examination at the end of each course, or on all combined.

In addition to the above examinations every student is required :—

To dissect the three parts of the body to the satisfaction of the demonstrator;

To receive practical instruction in anaesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

To take charge of and report on six cases in Obstetrics, under supervision and instruction.

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

* The examinations in these subjects are held at the end of the first half-year.

DEGREES

Degree of Doctor of Medicine

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before *the first day of May*.

A graduate of another Medical School of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned, but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

Degree of Doctor of Public Health

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of Dr.P.H. must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of Dr.P.H., and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medicine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of Dr.P.H. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of Dr.P.H.

Degrees of Master of Arts and Doctor of Philosophy

The degree of MASTER OF ARTS is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the *fifteenth day of January*. See page 544, University Catalogue for 1910-11, for the conditions of candidacy for the degree of Master of Arts, and for the requirements of the Faculty of Arts and Sciences for this degree.

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students. Information about these courses may be obtained from PROFESSOR THEOBALD SMITH, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

Degree of Doctor of Medicine

The fees are:—For matriculation, *five dollars*; for instruction, *two hundred dollars* for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, *one hundred and twenty dollars*. During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique; and a deposit of five dollars is required to cover breakage in the laboratory course in the Theory and Practice of Physic, the balance

* The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

of this deposit to be returnable at the end of the year. In the fourth year a charge of three dollars is made for material used in the course in Operative Surgery. A deposit of one dollar with the Dean will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Payment of Fees

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of *one hundred and fifty-four dollars*; *each second-year student* is required to pay in the same manner *one hundred and twenty-eight dollars*; and *all other students* are required to pay, in the same manner, the sum of *one hundred and twenty dollars*. Fourth-year students electing Surgery are required to pay a charge of three dollars for material in Operative Surgery. The remainder of the tuition fee — *eighty dollars* each for all students — must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Degree of Doctor of Public Health

A fee of \$150 is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

Degrees of Master of Arts and Doctor of Philosophy

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

Stillman Infirmary Fee

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman

Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Bond required of Students

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Withdrawal from the School

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. *No degree can be granted until the student has paid the full tuition fee for each year (first, second, third, fourth) in which he has been registered as a member of this School.*

If a student withdraws from the School for part of a year for good and sufficient reason, he may leave his fees deposited at the Bursar's office to be used at some later date for instruction equivalent to that which he missed by his withdrawal. If a student shortens his four years' work by working in the Summer School of Medicine, he must still pay a full tuition fee for each year he is registered as a member of the School.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students, who are admitted freely to the Out-Patient departments, wards and operating rooms of these hospitals: —

The Harvard Clinic. — The Medical School maintains in its buildings a clinic for the treatment of ambulatory cases of disease under the direction of a Committee in charge, and a visiting medical and surgical staff appointed by the Corporation. Committee in charge of the Clinic: HERBERT B. HOWARD, M.D., HENRY A. CHRISTIAN, M.D., DAVID CHEEVER, M.D. Visiting Physicians to the Clinic: FRANCIS W. PALFREY, M.D., CHANNING FROTHINGHAM, Jr., M.D., LESLEY H. SPOONER, M.D. Visiting Surgeons to the Clinic: DAVID CHEEVER, M.D., SAMUEL ROBINSON, M.D., JOHN HOMANS, M.D.

The Collis P. Huntington Memorial Hospital. — This Hospital is being erected on the Medical School grounds to afford accommodations for patients suffering from cancer. In this hospital investigations will be conducted under the direction of the Cancer Commission of Harvard University.

The Peter Bent Brigham Hospital. — Construction of this general hospital on ground adjacent to the Medical School buildings has begun. Dr. HENRY A. CHRISTIAN, Hersey Professor of the Theory and Practice of Physic, and Dr. HARVEY CUSHING, Professor of Surgery, have been appointed by the trustees of the hospital Physician-in-chief and Surgeon-in-chief respectively.

The Massachusetts General Hospital. — During the past year, more than six thousand patients were treated in the wards, five thousand five hundred cases were treated in the accident ward, and there were over one hundred and twenty-four thousand visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the amphitheatre. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedics, and Diseases of the Genito-Urinary System. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital. — During the past year, fifteen thousand, two hundred and fifty-nine cases were treated in its wards, and there were over one hundred and seventy-nine thousand visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, six thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous

system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over three thousand six hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than eight hundred patients were delivered during the last year in the Hospital. In the out-patient department, more than two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary.—More than one hundred and two thousand visits were made by patients at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital.—The wards of the Hospital are devoted entirely to children under two years of age. During the past year about fifteen thousand visits were made by children of all ages to the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital.—During the past year more than sixteen hundred cases were treated in the wards and about twenty-seven thousand visits were made to the out-patient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital.—During the past year three hundred and eighty-seven patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, pathological, chemical, and psychological, work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital. — During the past year thirteen hundred and twenty-three patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Besides regular commitments, emergency, voluntary and temporary care cases are received; the whole number of patients admitted last year was five hundred and fourteen, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary. — Over seventy-eight thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor. — This Hospital is designed particularly for the treatment of chronic diseases. It has three hundred and twenty-five beds, with an average daily number of patients of about three hundred. In connection with it is a maternity department with an average of twenty-seven children and twenty-nine births. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 75 per cent of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Carney Hospital. — During the past year there were treated at this hospital two thousand nine hundred and twenty-three ward patients and in the out-patient department there were forty-nine thousand and sixty-one visits by patients. The surgical, medical, gynaecological, and orthopedic services are under the direction of single heads with continuous service, who with assistants manage both the house and out-patient departments.

Clinical instruction will be given in connection with the various services, and opportunity will be afforded for a limited number of qualified men to engage in clinical investigation under the direction of the heads of services and their assistants. The orthopedic clinic offers special opportunities for the study of chronic joint affections in the adult.

The Free Hospital for Women. — This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital

has a capacity of sixty-four beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week beginning at nine o'clock in the morning and at three o'clock in the afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in each of the four laboratory buildings contain the literature of the subjects taught in the building. These libraries are open to students daily and contain about 15,000 volumes, 25,000 pamphlets, and receive 230 different current periodicals. The students have a small general medical library of over 400 volumes and about 20 current periodicals for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 69,000 bound volumes and 38,000 pamphlets, and nearly 700 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

Fellowships

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and twenty-five dollars each, and of the last, two hundred and fifty dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the

approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of five hundred and twenty-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand dollars. Founded in 1910 by **FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D.** "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

Scholarships

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

THE JAMES JACKSON CABOT SCHOLARSHIP; with an income of two hundred and seventy-five dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a scholarship "to aid and encourage practical work in scientific medicine."

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary be-

quest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

THE LEWIS AND HARRIET HAYDEN SCHOLARSHIP for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income, two hundred and fifty dollars, may be divided between two or more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

THE JOSEPH PEARSON OLIVER SCHOLARSHIP, with an income of four hundred dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of two hundred and fifty dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

THE JOHN THOMSON TAYLOR SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious students needing assistance. The next assignment in the Medical School will be made in 1914.

JAMES EWING MEARS SCHOLARSHIP IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of any degree from Harvard University. For further particulars, see page 552 of the Harvard University Catalogue for 1910-11.*

THE W. GRAHAM BOWDOIN, JR., SCHOLARSHIP; with an income of two hundred and fifty dollars, "to be awarded each year to a deserving student from the State of Maryland, who may be registered in any department of the University." For further particulars, see page 517 of the Harvard University Catalogue for 1910-11.

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further on page 525 of the Harvard University Catalogue for 1910-11.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. This Scholarship, founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee or Kentucky. The terms of gift are quoted further on page 570 of the Harvard University Catalogue for 1910-11.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever and Hayden Scholarships must be handed to the Director of Scholarships on or before *November 30*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

PRIZES

Boylston Medical Prizes.—These prizes, which are *open to public competition*, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1911 no prize was awarded, there being no essays submitted.

For 1912 two prizes are offered:—

1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Pathology, or Bacteriology*. The subject to be chosen by the writer.

2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Physiology, Physiological Chemistry, Pharmacology, or Experimental Therapeutics*. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before *January 1, 1912*.

For 1913 two prizes are offered:—

1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.

2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology*. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before *January 1, 1913*.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same

sentence or device, and containing within the author's name and residence. *Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.*

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within *one year* after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.

2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; FRANZ PFAFF, M.D., THEOBALD SMITH, M.D., WILLIAM T. PORTER, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize.—A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize.—For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the Harvard University Catalogue.

COURSES FOR SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work.

In addition, certain Departments offer courses, not a part of the regular curriculum, but specifically designed for special students; as follows:—
ANATOMY. Assistant Professor J. WARREN, and assistants.

(1) Course for artists, teachers, and others. (Essentially the regular first-year course with dissection.)

(2) Special instruction and opportunities for research.

PHYSIOLOGY. Professor CANNON.

Physiological Research.

COMPARATIVE PHYSIOLOGY. Professor PORTER.

Physiological Research.

BIOLOGICAL CHEMISTRY. Professor FOLIN and Assistant Professor HENDERSON.

Biochemical Research.

PHARMACOLOGY. Professor PFAFF and Dr. NELSON.

Pharmacological Research.

BACTERIOLOGY. Professor ERNST, and Drs. FROTHINGHAM and PAGE.

(1) Elementary courses beginning at other times than October 1 and February 1, for groups of not fewer than four students.

(2) Advanced instruction to groups of not fewer than four students.

(3) Research course for advanced students. Desks will be assigned at any time.

PATHOLOGY. Assistant Professor WRIGHT.

(1) Research in bacteriology and pathology.

(2) Instruction in bacteriological and pathological technique and in diagnosis by laboratory methods.

(3) Weekly demonstrations in pathological anatomy in conjunction with Assistant Professor RICHARD C. CABOT, who will discuss the clinical aspects of the cases.

COMPARATIVE PATHOLOGY. Professor THEOBALD SMITH.

Research. Problems in experimental and comparative pathology with special reference to infectious and parasitic diseases.

PREVENTIVE MEDICINE AND HYGIENE. Professor ROSENAU.
Research in Problems of Preventive Medicine and Hygiene.

SURGERY. Professor RICHARDSON.
(1) Special courses in surgical technique.

(2) Research.

These courses will be given in the Laboratory of Surgical Research. The laboratory is equipped with the necessary apparatus for surgical operations on animals and special courses of an elementary character in the technique of operation can be provided, or opportunity for research work on surgical problems may be given to persons who are satisfactorily qualified. Application may be made to Dr. JOHN HOMANS, Laboratory of Surgical Research.

ORTHOPEDIC SURGERY.

(1) Advanced instruction.

(2) Research work.

Opportunity is offered to qualified physicians who wish to devote special attention to orthopedic surgery.

Applications can be made to Dr. E. H. BRADFORD, 133 Newbury Street, Boston.

HOURS AND FEES

Applicants for the above courses should make arrangements as to time and fees with the respective heads of departments. They should then register and pay their fees at the Dean's office.

COURSES FOR GRADUATES

The Faculty has arranged for graduates of recognized medical schools an improved plan of instruction embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

A list of courses offered for graduates will be found on pages 88-95.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions :—

Massachusetts General Hospital,

Boston City Hospital,

Boston Dispensary,

Massachusetts Eye and Ear Infirmary,

Boston Lying-in Hospital,

Infants' Hospital,

Children's Hospital,

McLean Hospital (for the Insane),

Boston State Hospital,

Carney Hospital,

Free Hospital for Women.

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

All regular lectures (not clinical) in the undergraduate department of the School are open to men doing graduate work during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June.

FEEES

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

SUMMER SCHOOL OF MEDICINE

From June 1st to September 30th, 1912, courses in all the departments of the School are offered to students of the Harvard Medical School, students in good standing in other reputable medical schools, physicians having a State license to practice who are graduates of a recognized medical school, and such other persons as are approved by the Committee of the Summer School. Most of the courses extend for one month. Students and practitioners are able during their attendance to combine two or more clinical and laboratory courses with an economy of time. The clinical courses are given in the numerous hospitals and dispensaries in and around Boston. The laboratory courses are offered in the laboratories of the School or the hospitals.

A list of these courses will be ready for distribution in February. For further information address the Director of the Harvard Summer School of Medicine, Harvard Medical School, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1911-12

Subject	Instructor	Place	Months during which Course is Offered	Fee
Anatomy				
1. Omitted.				
2. Anatomy of the Joints	Dr. Adams	Medical School	Special *	\$25.
3. Dissection Courses	Ast. Prof. Warren and Dr. Cheever	Medical School	Oct.—May	20-50.
4. Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	Feb., Mar., April	25.
5. Anatomy of Nose and Throat	Dr. Mosher	Medical School	Mar.	25.
Comparative Anatomy				
†6. Elementary Human Histology and Embryology	Profs. Minot and Lewis, Dr. Bremer, and Mr. Johnson	Medical School	Oct., Nov., Dec., Jan.	50.
†7. Anatomy of Higher Vertebrates	Dr. Williams	Medical School	Oct., Nov., Dec., Jan.	50.
†8. Embryology of Vertebrates	....	Medical School	Feb., Mar., Apr., May	50.
†9. Advanced Histology	Dr. Bremer	Medical School	Feb., Mar., Apr., May	50.
†10. Structure and Development of the Eye, Ear, and Naso-pharynx	Prof. Minot and Dr. Williams	Medical School	Feb., Mar., Apr., May	50.
†11. Structure and Development of the Urogenital System	Prof. Minot and Dr. Williams	Medical School	Oct. and Nov.	25.
†12. Development and Histology of the Nervous System	Prof. Minot and Dr. Williams	Medical School	Oct. and Nov.	25.
†13. Research	Prof. Minot	Medical School	Dec. and Jan.	25.
			Special *	Special *

Physiology					
†14. Detailed Study in Physiology	Profs. Cannon and Martin	Medical School	Oct.—May	Special.*	
†15. Research in Physiology	Profs. Cannon and Martin	Medical School	Oct.—May	Special.*	
Comparative Physiology					
†16. Experimental Work in Physiology	Prof. Porter	Medical School	Oct.—May	No fee.	
Biological Chemistry					
†17. Advanced Individual Work	Profs. Folin and Henderson	Medical School	Oct.—May	10.	
Bacteriology					
†18. Research and General Laboratory Work in Bacteriology	Prof. Ernst	Medical School	Special *	25.	
Pathology					
†19. Research and General Laboratory Work in Pathology	Profs. Councilman, Mallory, and Wright	Med. Sch., Boston City and Mass. General Hosps.	Special *	Special.*	
Comparative Pathology					
20. The Comparative Pathology and Etiology of Infectious and Parasitic Diseases	Prof. Smith and Dr. Fabyan	Medical School	Oct., Nov.	30.	
21. Medical Zoölogy	Prof. Smith and Dr. Fabyan	Medical School	Apr., May	25.	
†22. Research	Prof. Smith and Dr. Fabyan	Medical School	Special *	Special.*	

* When time and fee are "special," arrangements must be made with the Instructor.

† Women admitted.

Subject	Instructor	Place	Months during which Course is offered	Fee
Neuropathology				
+23. Neuropathology	Prof. Southard and Assistants	Medical School	Oct.—May	\$25.
+24. Neuropathological Case Reporting	Prof. Southard and Assistants	Danvers State Hospital	Oct.—May	35.
25. Research in Neuropathology	Prof. Southard and Assistants	Medical School	Special *	Special.*
Preventive Medicine and Hygiene				
+26. General Elementary Course	Professor Rosenau, Drs. Kendall and Amoss	Medical School	Feb., Mar., Apr., May	30.
27. Laboratory Course	Professor Rosenau, Drs. Kendall and Amoss	Medical School	Feb., Mar.	50.
28. Research Course	Professor Rosenau, Drs. Kendall and Amoss	Medical School	Special *	Special.*
+29. Intestinal Bacteriology	Dr. Kendall	Medical School	Nov.	25.
Pharmacology				
+30. Research in Pharmacology	Prof. Pfaff	Medical School	Special *	Special.*
+31. Experimental Pharmacology	Drs. Nelson and D. L. Williams	Medical School	Dec., Jan.	25.
Medicine				
32. Theory and Practice 1	Dr. Palfrey	Mass. General Hospital	Oct.—May	25.
33. Theory and Practice 2	Prof. Christian and Drs. Leen and Frothingham	Carney Hospital and Medical School	Oct.—May	25.
34. Theory and Practice 3	Dr. Pratt	Medical School	Oct.—May	25.

†35. Theory and Practice 4	Dr. Frothingham	Medical School	Oct.—May	25.
36. Theory and Practice 5	Dr. Hewes	Mass. General Hospital and Medical School	Oct.—Jan.	25.
37. Fourth-Year Elective in Clinical Medicine	Asst. Prof. Cabot and Drs. Hugh Cabot & O. Richardson	Mass. General Hospital	Oct.—May	25.
38. Diagnosis and Treatment	Dr. Leen	Carney Hospital	Nov., Jan., Mar.	25.
39. Clinical Medicine	Dr. A. K. Stone	Mass. General Hospital	Oct.—Jan.	5.
†40. Diseases of the Digestive Organs and of Metabolism.—Dietetics.	Dr. F. W. White	Boston City Hosp., O. P. D.	Nov.	20.
†41. Physical Diagnosis and Medical Practice	Drs. Lord and Spooner	Mass. Gen. Hosp. and Medical School	Oct., Nov., Dec., Jan.	25.
42. Physical Diagnosis	Dr. Lord	Mass. General Hospital	Nov., Dec., Jan.	25.
43. Clinical Medicine	Dr. W. H. Smith	Mass. General Hospital	Feb.—June	25.
†44. Clinical Diagnosis	Dr. Overlander	Harvard Med. School	Oct.—June	30.
Tropical Medicine				
45. Medical Zoölogy	....	Medical School	Special *	Special.*
Roentgenology				
46. Practical Course in Roentgenology	Drs. Dodd, Ellsworth, and Brown	Mass. General Hospital Boston City Hospital and Dr. Brown's office	Oct.—June	30.
Surgery				
47. Surgery 1	....	Hospitals and Med. School	Oct.—May	25.

* When time and fee are "special," arrangements must be made with the Instructor.

† Women admitted.

Subject	Instructor	Place	Months during which Course is offered	Fee
				Special.*
48. Research in Surgical Pathology	Asst. Prof. Nichols and Dr. Loder	Medical School	Oct.—June	
49. Clinical and Operative Surgery	Dr. F. Cobb	Mass. General Hospital	Oct., Nov., Dec., Jan.	\$30.
50. General Major Surgery	Drs. Monks, Blake, Lund, Lothrop, and Faulkner	Boston City Hospital	Jan., Feb., and Mar.	25.
51. Minor and Major Genito-Urinary Surgery	Asst. Prof. P. Thorndike and Dr. Binney	Boston City Hospital	Jan.—June	25.
52. General Major Surgery	Asst. Prof. J. B. Blake and Dr. Lund	Boston City Hospital	Jan.—March	25.
53. Major Surgery	Asst. Prof. J. B. Blake and Assistants	Boston City Hospital	Apr.—May	25.
†54. General Surgery of Children	Dr. J. S. Stone	Children's Hospital	Oct.—May	25.
†55. Operative Surgery	Dr. Hubbard or Dr. Homans	Medical School	Oct.—May	25.
†56. Surgical After-treatment	Dr. Crandon	Boston City Hospital	Jan., Mar., May	25.
57. Operative Surgery	Dr. Monks	Harvard Medical School	Special*	25.
Orthopedic Surgery				
†58. General Orthopedic Surgery, 4 courses	Profs. Bradford, Nichols, and Lovett, and Drs. Brackett, Thorndike, Osgood, Souther, Brown, Adams, and Buchholz	Children's Hospital Mass. General Hospital Carney Hospital	Oct., Nov., Jan., Feb., Mar., Apr., May	50.
Obstetrics				
59. Clinical Obstetrics, 8 courses	The Department Staff	Boston Lying-in Hosp.	Oct.—May	25.
60. Clinical Obstetrics, 8 courses	Address Prof. Green	Boston Lying-in Hosp.	Special *	25.
61. Operative Obstetrics, 8 courses	The Department Staff	Medical School	Oct.—May	25.

62. Clinical and Operative Obstetrics	Address Prof. Green	Boston Lying-In Hosp. and Medical School	Oct.—May	25.
Gynaecology				
63. A Gynaecology, 8 courses B Gynaecology, out-patient, 8 courses A and B Gynaecology	Profs. Green and Newell, and Drs. Young, Friedman, and Mason	Boston City Hospital Boston City Hospital Boston City Hospital	Oct.—May Oct.—May Oct.—May	25. 25. 25.
†64. Gynaecology	Dr. Storer	Boston Dispensary	Jan.	25.
65. A. Gynaecology B. Gynaecology	Dr. Graves Dr. Graves	Free Hospital for Women Free Hospital for Women	Oct.—May Special *	75. Special.*
Pediatrics				
†66. Pediatrics, 8 courses	Prof. Rotch and Assistants	See page 33	Oct.—May	25.
†67. Pediatrics	Dr. Dunn	Infants' Hospital	Oct.—Nov.	10.
†68. Pediatrics	Asst. Prof. Morse	Children's Hospital	Dec.—Jan.	10.
†69. Pediatrics	Dr. Bowditch	Children's Hospital	Feb., March	10.
†70. Pediatrics	Dr. Talbot	Mass. Gen. Hospital	Apr.—May	10.
Dermatology				
71. Dermatology, 8 courses	Prof. C. J. White, Drs. Towle and Burns	Mass. General Hospital	Oct.—May	25.
Syphilis				
72. Syphilis	Asst. Prof. Post and Dr. C. M. Smith	Boston Dispensary	Oct.—Jan.	25.

* When time and fee are "special," arrangements must be made with the Instructor.

† Women admitted.

Subject	Instructor	Place	Months during which Course is offered	Fee
Neurology				
†73. Advanced Clinical Neurology	Prof. Putnam, Drs. Taylor, Waterman, and Knapp	Mass. General Hospital and Boston City Hosp.	Oct.—May	\$15.
†74. Clinical Neurology	Dr. Taylor	Mass. General Hospital	Nov.—Feb.	20.
†75. Clinical Neurology	Dr. Waterman	Mass. General Hospital	Oct.—Feb.	20.
†76. Clinical Neurology	Dr. Knapp	Boston City Hospital	Feb.—May	20.
†77. Laboratory and Clinical Neurology	Dr. Taylor	Med. Sch., Mass. Gen. and Long Island Hosps.	Oct.—May	50-75.
Psychiatry				
†78. Psychiatry	Drs. Cowles and Tuttle	McLean Hospital and Boston State Hospital	Oct.—May	25.
Otology				
†79. Research in Otology	Prof. Blake	....	Oct.—May	Special.*
†80. Clinical Otology	Drs. Knowles, Amadon, Mosher, and Walker	Eye and Ear Infirmary	Oct.—May	25.
†81. Oper. Surg. of Temp. Bone	Dr. Knowles	Medical School	Special *	25.
†82. Operative Otology	Drs. Crockett and Hammond	Mass. Charitable Eye and Ear Infirmary	Feb.—May	25.
†83. Out-Patient and Operative Otology	Drs. Crockett and Amadon	Mass. Charitable Eye and Ear Infirmary	Mar. 15.—May 1	25.
†84. Operative and Clinical Otology	Drs. Crockett and Amadon	Mass. Charitable Eye and Ear Infirmary	Feb.—March	35.

†85. Op. Surgery of the Temporal Bone	Dr. Walker	Medical School	Nov.—May	25.
Ophthalmology				
†86. Fourth-Year Elective. Ophthalmology	....	Mass. Charitable Eye and Ear Infirmary	Feb.—May	25.
87. Ophthalmology	Prof. Standish and Dr. Haskell	Mass. Charitable Eye and Ear Infirmary	Feb. and March	50.
88. Ophthalmology — Clinical and Operative	Dr. Quackenboss	Mass. Charitable Eye and Ear Infirmary	Oct.—Nov.	25.
†89. Ophthalmology	Dr. Spalding	Mass. Charitable Eye and Ear Infirmary	Apr.—May	25.
90. Clinical Ophthalmology	Dr. Clap	Mass. Charitable Eye and Ear Infirmary	Dec., Jan.	25.
Laryngology and Rhinology				
91. Laryngology	Prof. Coolidge, Drs. Cobb, Clark, Goodale, Mosher, Barnes, and Wright	Mass. General Hospital	Oct.—June	25.
†92. Pathology of the Nose and Throat	Drs. Goodale, Barnes, and Amadon	Medical School	Feb., March	50.
†93. Microscopic Pathology of the Nose and Throat	Dr. Barnes	Medical School	Special *	25.
†94. Teeth and their relation to Diseases of the Nose and Throat	Dr. G. H. Wright	Mass. General Hospital	Oct.—Feb.	10.

* When time and fee are "special," arrangements must be made with the Instructor. † Women admitted.

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1911

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
Anatomy								
1. General Anatomy	Drs. Warren, Cheever, and Green do. do.	Medical School	..	June 1	June 30	Special†	..	\$50
do.		do.	..	July 1 Aug. 1	July 31 Aug. 31	Special† Special†	..	50 50
do.		do.	..					
2. Surgical Anatomy of Abdomen	Dr. Cheever do. do. do.	Medical School	6-8	July 10	..	Special†	3½-5	25
do.		do.	6-8	July 19	..	Special†	3½-5	25
do.		do.	6-8	Aug. 9	..	Special†	3½-5	25
do.		do.	6-8	Aug. 19	..	Special†	3½-5	25
3. Regional Anatomy	Dr. Cheever do. do. do. do. do. do. do. do.	Medical School	4-8	July 3	..	Special†	..	Sp'l
do.		do.	4-8	July 10	..	Special†	..	Sp'l
do.		do.	4-8	July 17	..	Special†	..	Sp'l
do.		do.	4-8	July 24	..	Special†	..	Sp'l
do.		do.	4-8	July 31	..	Special†	..	Sp'l
do.		do.	4-8	Aug. 7	..	Special†	..	Sp'l
do.		do.	4-8	Aug. 14	..	Special†	..	Sp'l
do.		do.	4-8	Aug. 21	..	Special†	..	Sp'l
do.		do.	4-8	Aug. 28	..	Special†	..	Sp'l
4. An. of male genito-urinary organs do.	Dr. Barney do.	Medical School do.	5 5	July 3 July 17	July 8 July 21	M. Tu. W. T. F. do.	3-5 3-5	25 25
5. An. of fem. genito-urinary organs do.	Dr. Barney do.	Medical School do.	5 5	July 10 July 24	July 14 July 28	M. Tu. W. T. F. do.	3-5 3-5	25 25
Comparative Anatomy								
6. Element. Histology & Embryology	Mr. Heuser	Medical School	24	July 5	Aug. 1	Daily	9-1	25
7. Advanced course in Histology and Embryology	Mr. Heuser	Medical School	24	July 5	Aug. 1	Daily	Spec'l	15
8. Research in Comp. Anat.	Drs. Lewis and Bremer	Medical School	..	..	..	Daily	..	Sp'l

Physiology										
9. Practical Physiology do. do.	Dr. Martin do. do.	Medical School do. do.	46 26 20	July July July	1 1 1	July 31 July 31 July 31	Daily Daily Daily	9-5 9-1 2-5	40 30 25	
10. Physiol. of the Nervous System and the Sense Organs	Dr. Martin	Medical School	26	July	1	July 31	Daily	9-1	30	
Biological Chemistry										
11. Lab. Practice and Lectures in Bio- logical Chemistry	Prof. Folin and assistants	Medical School	31	June 15	July	28	M. Tu. W. T. F.	9-1 2-5	50	
12. Research in Biological Chemistry	Prof. Folin	Medical School	..	June July	..	Special † Special †		..	25 25	
Bacteriology										
13. Bacteriology of Milk do.	Dr. Page do.	Medical School do.	15 15	May June	15 12	June 2 June 30	M. Tu. W. T. F. do.	Spec'l Spec'l	20 20	
14. Infectious Diseases of Animals	Dr. L. Frothingham	Medical School	..	..	..	Special †		..	50	
15. Bacteriology	Dr. Everett	Medical School	20	July	3	July 31	M. Tu. W. T. F.	3½	30	
16. Bacteriology	Dr. Worthington	Medical School	23	Aug.	1	Aug. 31	M. Tu. W. T. F.	3-5	30	
17. Clinical Bacteriology	Dr. Floyd	Medical School	26	July	1	July 30	Daily	3½-6	30	
Pathology										
18. Pathological Anatomy and Histol- ogy	Prof. Councilman and Drs. Richards and Barkan	Medical School	27	Aug.	1	Aug. 31	Daily	9-5	50	
do. do.	do. do.	do. do.	27 27	Aug. Aug.	1 1	Aug. 31 Aug. 31	Daily Daily	9-12 2-5	30 30	

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
19. Path. Anat. and Autop. Technic do.	Dr. Oscar Richardson do.	Mass. Gen. Hosp. do.	26 27	July 1 Aug. 1	July 30 Aug. 31	Daily Daily	9-1 2-5 9-1 2-5	\$35 35
Comparative Pathology								
20. Medical Zoölogy do.	Dr. C. T. Ryder do.	Medical School do.	22 20	June 1 July 3	June 30 July 31	M. Tu. W. T. F. do.	1½-5 1½-5	30 30
Neuropathology								
21. Neuropathology		Medical School	20	Aug. 1	Aug. 26	M. Tu. W. T. F.	2-5	30
22. Neuropathology.	Dr. S. T. Orton	Worcester State Hospital	20	..	..	Daily	9-5	50
23. Clinical Pathology with relation to Psychiatry do.	Dr. Adler do.	Danvers State Hosp. do.	40 40	July 3 Aug. 1	July 31 Aug. 26	M. Tu. W. T. F. do.	.. ..	50 50
Tropical Medicine								
24. Protozoölogy	Dr. Tyzzer	Medical School	20	July 3	July 31	M. Tu. W. T. F.	1½-5	25
Legal Medicine								
25. Legal Medicine	Dr. Magrath					Special†		50
Preventive Medicine and Hygiene								
26. Preventive Med. and Hygiene	Dr. Kendall	Medical School	35	July 1	Aug. 10	Daily	9-12½	40
27. Intestinal Bacteriology	Dr. Kendall	Medical School	50	July 1	Aug. 31	Daily	..	60

Pharmacology and Therapeutics										
28. Experimental Pharmacology		Dr. Nelson	Medical School	20	July	3	July 31	M. Tu. W. T. F.	9-11½	35
29. Rational Therapeutics		Dr. Nelson	Medical School	13	July	3	July 31	M. W. F.	4-5	10
Internal Medicine										
30. Physical Diagnosis do. do.		Dr. R. C. Cabot do. do.	Mass. Gen. Hosp. do. do.	26 26 26	July July July	1 1 1	July 31 July 31 July 31	Daily Daily Daily	9½-4½ 9½-1 2½-4½	60 35 35
31. Diet, and Diabetes Mellitus		Dr. Joslin	81 Bay State Road	8	Aug.	8	Aug. 23	Tu. W. Th.	2	10
32. Diseases of Intestines, Kidneys, Stomach		Dr. Hewes	Mass. Gen. Hosp.	20	July	3	July 31	M. Tu. W. T. F.	9-12	35
33. Diseases of the Digestive Organs		Dr. F. W. White	Boston City Hosp.	12	June	1	June 29	Tu. Th. Sat.	10-12	25
34. Physical Diagnosis do.		Dr. Robey do.	Boston City Hosp. do.	24 24	July Aug.	1 1	July 29 Aug. 28	Daily Daily	10-1 10-1	25 25
35. Clin. Diagnosis in Relation to Post- Mortem Findings		Drs. W. H. Smith, Lee, and O. Richardson	Mass. Gen. Hosp.	4	July	1	July 24		3-5	15
36. Physical Diagnosis and Clinical Pathology		Drs. Leen and Robbins	Carney Hosp.	23	June	5	June 30	Daily	9½-12½	35
37. Clinical Medicine do.		Dr. Leen do.	Carney Hosp. do.	26 26	July Sept.	1 1	July 31 Sept. 30	Daily Daily	10-12 10-12	30 30
38. Lab. Course in Clin. Diagnosis do. do.		Dr. Overlander do. do.	City Hospital or Medical School do. do.	22 20 23	June July Aug.	1 3 1	June 30 July 31 Aug. 31	M. Tu. W. T. F. do. do.	Spec'1† Spec'1† Spec'1†	30 30 30
39. Clinical Pathology		Dr. Robbins	Medical School	20	June	1	June 28	M. Tu. W. T. F.	3-5	30
40. Physical Diagnosis and Clinical Pathology do. do.		Dr. C. Frothingham, Jr. do. do.	Medical School do. do.	26 27 26	July Aug. Sept.	1 1 1	July 31 Aug. 31 Sept. 30	Daily Daily Daily	3-5 3-5 3-5	35 35 35

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
41. Clinical Medicine and Pathology	Drs. Leen and C. Frothingham, Jr.	Carney Hosp.	24	Aug. 1	Aug. 28	Daily	10-12	\$35
Pediatrics								
42. Pediatrics	Dr. Lucas					Special	Spec'l	Spl.
43. Pediatrics	Dr. Lucas	Children's Hosp.	12	June 1	June 29	Tu. Th. S.	11-12	20
44. Pediatrics	Dr. Ladd	Infants' Hosp.	12	June 2	June 28	M. W. F.	11-12	20
45. Pediatrics	Dr. Dunn	Infants' Hosp. Children's Hosp.	25 20	July 3 July 31	July 31 July 31	Daily M. Tu. W. T. F.	10-1 3-5	50
46. Pediatrics	Dr. Bowditch	Floating Hospital	8	July 5	July 28		4½-6	20
47. Pediatrics	Dr. Bowditch	Children's Hosp.	14	Aug. 1	Aug. 31	Tu. Th. S.	9½-12	20
48. Pediatrics	Dr. Lucas	Children's Hosp.	9	Aug. 1	Aug. 29	Tu. F.	3-5	20
49. Pediatrics	Dr. Morse	Children's Hosp.	13	Aug. 2	Aug. 30	M. W. F.	10-11½	20
50. Pediatrics	Dr. Talbot	Mass. Gen. Hosp.	5	Aug. 2	Aug. 30	W.	12-1	15
51. Pediatrics	Dr. Fairbanks	Children's Hosp.	9	Aug. 2	Aug. 30	W. S.	3-5	20
52. Pediatrics	Dr. R. M. Smith	Floating Hospital	8	Aug. 3	Aug. 28	M. Th.	5-6	20
53. Pediatrics	Dr. Place	Boston City Hosp.	8	Aug. 4	Aug. 28	M. F.	12-1	20
54. Pediatrics	Dr. Morse	Children's Hosp.	12	Sept. 1	Sept. 29	M. W. F.	10-11½	20
55. Pediatrics	Dr. Place	Boston City Hosp.	9	Sept. 1	Sept. 29	Tu. F.	3-4	20
56. Pediatrics	Dr. Bowditch	Children's Hosp.	13	Sept. 2	Sept. 30	Tu. Th. S.	9½-12	20
57. Pediatrics	Dr. Fairbanks	Children's Hosp.	9	Sept. 2	Sept. 30	W. S.	3-5	20
58. Pediatrics	Dr. R. M. Smith	Mass. Gen. Hosp.	7	Sept. 7	Sept. 28	M. Th.	3-5	20

Roentgenology		Drs. Dodd and Brown do.	Mass. Gen. Hosp. do.	26 27	July Aug.	1 July 1 Aug.	31 31	Daily Daily	8½-12 8½-12	60 60
Surgery										
59. Roentgenology do.	Major Clinical and Operative Surgery, with, during July, Sur- gical Pathology do. do.	Drs. Lund and Nichols, assisted during July by Dr. Halsey B. Loder do. do.	City Hospital	24	June	1 June	28	Daily	10-12	25
60. Major Clinical and Operative Surgery, with, during July, Sur- gical Pathology do. do.	Major Clinical and Operative Surgery, with, during July, Sur- gical Pathology do. do.	Drs. Lund and Nichols, assisted during July by Dr. Halsey B. Loder do. do.	City Hos.&H.M.S City Hospital	24 24	July Sept.	1 July 1 Sept.	29 29	Daily Daily	9-12 10-12	25 25
61. General Surgery do.	General Surgery do.	Drs. Porter, Jones, and Swift do.	Mass. Gen. Hosp. do.	26 26	July Aug.	1 July 1 Aug.	31 30	Daily Daily	10-1 10-1	35 35
62. Major Surgery do.	Major Surgery do.	Dr. Lothrop	City Hospital	26	July	1 July	31	Daily	10	25
63. Genito-Urinary Surgery do.	Genito-Urinary Surgery do.	Dr. Hugh Cabot	Mass. Gen. Hosp.	36	July	17 Aug.	26	Daily	10-1	30
64. Operative Surg. on the Cadaver do. do. do.	Operative Surg. on the Cadaver do. do. do.	Drs. Faulkner, Crandon, and Howe do. do. do.	Medical School	10 10 10 10	June July Aug. Sept.			Special† do. do. do.		25 25 25 25
65. Surgical Diseases of Children do. do. do.	Surgical Diseases of Children do. do. do.	Dr. Stone and volunteer assistant surgeons do. do. do.	Children's Hosp.	20 20 20 20	June July Aug. Sept.	1 June 1 July 1 Aug. 2 Sept.	28 29 26 30	M. Tu. W. T. S. do. do. do.	3½-5 3½-5 3½-5 3½-5	25 25 25 25
66. Surgery; Diagnosis and Treatment of Ambulatory Cases do.	Surgery; Diagnosis and Treatment of Ambulatory Cases do.	Dr. Murphy do.	Mass. Gen. Hosp. do.	24 24	Aug. Sept.	1 Aug. 1 Sept.	31 30	Daily Daily	10-1 10-1	25 25
67. Out-Patient Fractures and Surgery do. do.	Out-Patient Fractures and Surgery do. do.	Dr. Crandon do. do.	City Hospital do. do.	26 26 26	June Aug. Sept.	1 June 1 Aug. 1 Sept.	30 30 30	Daily Daily Daily	9-11 9-11 9-11	25 25 25

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
68. Major Surgery	Dr. Howe	City Hospital	27	Aug. 1	Aug. 31	Daily	9-12	\$25
69. Minor Surgery do.	Dr. Howe do.	City Hospital do.	25 25	June July 1	June 30 July 29	Daily Daily	9-12 9-12	25 25
70. Genito-Urinary Surgery	Dr. O'Neil	Boston Dispensary	25	June 1	June 30	Daily	9½-12½	25
71. Operative Surgery do.	Dr. Homans do.	Medical School do.	6 6	July Aug.	.. ..	Special † ..	.. ..	25 25
Orthopedic Surgery								
72. Orthopedic Surgery	Prof. Bradford, and Drs. Lovett, Brackett, Goldthwait, A. Thorn- dike, Nichols, Osgood, Soutter, Brown, Adams, and Buchholz do.	Children's Hosp. Boston Dispensary Warren Museum Carney Hospital Mass. Gen. Hosp. do.	26 25	June 1 July 1	June 30 July 31	Daily Daily	Spec'l † Spec'l †	50 50
Obstetrics								
73. Clinical Obstetrics	Dr. Swain, assisted by Drs. Friedman, Tor- bert, De Normandie, and Mason	Lying-in Hospital	..	May 1	Oct. 1	Daily	Spec'l †	30
74. Clinical Obstetrics do. do. do.		Lying-in Hospital do. do. do.	26 25 27 25	June July 1 Aug. 1 Sept. 1	June 30 July 31 Aug. 31 Sept. 30	Daily Daily Daily Daily	11 11 11 11	20 20 20 20
75. Operative Obstetrics do. do. do.		Medical School do. do. do.	6 6 6 6	June July 1 Aug. 1 Sept. 2	June 10 July 8 Aug. 7 Sept. 9	Daily Daily Daily Daily	4-6 4-6 4-6 4-6	25 25 25 25

Gynaecology	76. Gynaecology	Dr. Young	City Hospital	12	June	..	Special †	9½	30
	do.	do.	do.	12	July	..	Special †	9½	30
	do.	Dr. Mason	do.	12	Aug.	..	Special †	9½	30
	do.	Dr. Young	do.	12	Sept.	..	Special †	9½	30
Gynaecology	77. Gynaecology	Dr. Mason	City Hospital	12	June	1 June 30	Tu. Th. S.	9½-12	25
	do.	do.	do.	12	July	1 July 29	do.	9½-12	25
	do.	do.	do.	12	Aug.	1 Aug. 31	do.	9½-12	25
	do.	do.	do.	12	Sept.	2 Sept. 30	do.	9½-12	25
Operative Gynaecology	78. Operative Gynaecology	Dr. Storer	St. Elizabeth's Hospital	13	June	2 June 30	M. W. F.	9½	25
Dermatology	79. Clinical Dermatology	Dr. White	Mass. Gen. Hosp.	26	July	1 July 31	Daily	9-12	25
	do.	do.	do.	26	Sept.	1 Sept. 30	Daily	9-12	25
	80. Clinical Dermatology	Dr. Burns	Mass. Gen. Hosp.	27	Aug.	1 Aug. 31	Daily	9-12	25
Syphilis	81. Syphilis	Drs. Post and C. M. Smth	Boston Dispens'ry	20	June	1 June 29	M. Tu. W. T. F.	10-12½	25
	do.	do.	do.	20	July	1 July 31	do.	10-12½	25
	do.	do.	do.	20	Aug.	1 Aug. 25	do.	10-12½	25
Neurology	82. Neurology	Dr. Knapp	City Hospital	26	July	1 July 31	Daily	9-12	30
	83. Neurology	Drs. Putnam, Taylor, and Waterman	Mass. Gen. Hosp.	27	Aug.	1 Aug. 31	Daily	9-12	30
	84. Neurology	Drs. Taylor & Waterman	Mass. Gen. Hosp.	25	Sept.	1 Sept. 30	Daily	9-12	30

† Time to be arranged with instructor.

Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
Ophthalmology								
85. Clinical Ophthalmology do.	Dr. Spalding do.	Eye and Ear Inf. do.	24 24	June July 1	June 28 July 29	Daily Daily	9-11½ 9-11½	\$30 30
86. Clinical Ophthalmology do.	Dr. Quackenboss do.	Eye and Ear Inf. do.	24 24	Aug. Sept. 1	Aug. 27 Sept. 29	Daily Daily	9-12 9-12	25 25
87. Clin.-Path. Course in Dis. of the Eye	Dr. Verhoeff	Eye and Ear Inf.	36	Aug. 1	Sept. 12	Daily	9-12	50
Otology								
88. Oper. and Clin. Otology do.	Drs. Hammond and Amadon do.	Eye and Ear Inf. do.	24 24	June July 1	June 30 July 29	Daily Daily	9-11 9-11	35 35
89. Clinical Otology do.	Dr. Amadon do.	Eye and Ear Inf. do.	24 24	June July 3	July 1 July 29	Daily Daily	9-11 9-11	25 25
90. Surgical Anatomy of the Ear	Dr. Hammond	Medical School	12	July 3	July 28	M. W. F.	11-1	25
91. Op. Surg. of the Temporal Bone	Dr. Walker	Medical School	12	..	..	Special†		25
92. Op. Surg. of the Temporal Bone do.	Dr. Knowles do.	Medical School do.	12 12	June July	.. ..	Special† Special†		25
Laryngology and Rhinology								
93. Laryngology and Rhinology do. do. do.	Drs. Clark, Goodale, and D. C. Greene, Jr. do. do. do.	Mass. Gen. Hosp. do. do. do.	24 24 24	June July 1 Aug. 1 Sept. 1	June 29 July 29 Aug. 28 Sept. 29	Daily Daily Daily Daily	10-12 10-12 10-12 10-12	25 25 25 25
94. Laryngology and Rhinology	Dr. Coffin	Boston City Hosp.	12	June 2	June 28	M. W. F.	9-11	15

95. Microscopic Path. of the Nose and Throat	do.	Dr. Barnes	do.	Medical School	20	June 1	June 28	M. Tu. W. T. F.	3-5	25
				do.	20	July 1	July 31	do.	3-5	25
96. Clin. Laryngology and Rhinology	do.	Dr. Barnes	do.	Boston Dispensary	24	July 1	July 29	Daily	10-12	25
	do.	do.	do.	do.	24	Aug. 1	Aug. 27	Daily	10-12	25
	do.	do.	do.	do.	24	Sept. 1	Sept. 29	Daily	10-12	25
97. Clin. Laryngology and Rhinology in Children	do.	Drs. Greene and Garland	do.	Children's Hosp.	16	June 1	June 29	M. Tu. Th. F.	3½-5	25
	do.	do.	do.	do.	16	July 3	July 31	do.	3½-5	25
	do.	do.	do.	do.	16	Aug. 1	Aug. 28	do.	3½-5	25
98. Teeth and Their Relation to Diseases of the Nose and Throat		Dr. G. H. Wright		Mass. Gen. Hosp. Medical School Dental School	12	July 14	Aug. 9	M. W. F.	11-1	15

† Time to be arranged with instructor.

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	<i>October.</i> Anatomy. Lecture. <i>November, December.</i> Demonstrations and Laboratory Work.	<i>Oct., Nov., Dec.,</i> Anatomy. Lecture.	<i>October.</i> Anatomy. Lecture. <i>November, December.</i> Demonstrations and Laboratory Work.			<i>Oct., Nov., Dec.,</i> <i>9-11.</i> Histology. <i>January, 9-11.</i> Anatomy. Lecture.
10-1	<i>October, November, December, January.</i> Demonstrations and Laboratory Work.			<i>Oct., Nov., Dec.,</i> <i>January, 11-1.</i> Anatomy. Lecture and Demonstrations		
2-6	<i>January.</i> Anatomy. Lectures, Demonstrations, and Laboratory Work.					
2-2.30	<i>October, November, December.</i> Histology. Lecture.					
2.30-6	Histology. Laboratory. <i>* Oct., Nov., Dec., Jan.</i> General Chemistry.					

FIRST YEAR. — Second Half-Year
PHYSIOLOGY. FEBRUARY

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-12.30			Laboratory Experiments.			
			<i>March, April, May.</i>			
9-10			Lecture or Demonstration			
10-11.45			Laboratory Experiments.			
11.45 12.30			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.		Laboratory.	

SECOND YEAR. — First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.		JANUARY.
9-12	Pathology. Laboratory.	1 week. Pathology. Laboratory. Daily.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory. T. Smith and E. E. Tyzzer. Daily.	9-10	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				9-12	Tuesday, Thursday, and Saturday.
				10.30-12	Monday, Wednesday, and Friday. Pathology. Laboratory.
12-1	Pathology. Lectures. Daily.			12-1	Pathology. Lectures. Daily.
2-3	Bacteriology. Lectures. Daily except Saturday.		Neuropathology. Daily except Saturday. Lectures and Laboratory. Southard.		Surgical Pathology. Laboratory. Daily except Saturday. Nichols.
3-5.30	Bacteriology. Laboratory. Daily except Saturday.				

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	M. G. H.	M. G. H.	B. C. H.	M. G. H.	M. G. H.	B. C. H.
	Clinical Medicine Clinic Shattuck	Surgery Clinic Richardson	Surgery Clinic Blake	Theory & Practice Clinic Badger	Surgery Clinic Richardson	Clinical Medicine Clinic Jackson
10-11						
11-12						Surgery Clinic Lothrop
Section Work						
1-3	Clinical Pathology. Bldg. C.					
3-4	Preventive Medicine and Hygiene. L. Rosenau Bldg. E.	Theory & Practice. L. Christian Room 201 Bldg. A.	Preventive Medicine and Hygiene. L. Rosenau Bldg. E.	Preventive Medicine and Hygiene. L. Rosenau Bldg. E.	Theory & Practice. L. Christian Room 201 Bldg. A.	
4-5	Surgery. L. Room 201 Bldg. A.	Material Medica and Pharmacology L. & R. Nelson Bldg. E.	Pharmacology. L. Pfaff Bldg. E.	Surgery. L. Room 201 Bldg. A.	Pharmacology. L. Pfaff Bldg. E.	
5-6	Surgical Technique 6 lectures Lothrop Room 201 Bldg. A.	Surgery. L. Room 201 Bldg. A.			Surgery. R. Lothrop and Greenough Room 201 Bldg. A.	

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
<i>Class Exercises</i> 9-10	Theory and Practice Clinic Hewes, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.	Theory and Practice Clinic, Stone, Lee, or Lord, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.
10-11	Surgery Clinic Richardson M. G. H.	Clinical Surgery Clinical L. Nichols, J. B. Blake B. C. H.	Dermatology Clinic Bowen, M. G. H.	Neurology Clinic Taylor, M. G. H.	Pediatrics Clinical L. Rotch, C. H.	Theory and Practice Clinic Pratt, M. G. H.
<i>Sections</i> 11-1	Section Work.					
2-3	Obstetrics. L. Green Room 205 Bldg. A.	Theory & Practice. L. Christian, Room 201 Bldg. A.	Obstetrics Conference Swain Room 205 Bldg. A.	Obstetrics. L. Green Room 205 Bldg. A.	Theory & Practice. L. Christian, Room 201 Bldg. A.	
3-4	Surgery. L. Room 201 Bldg. A.	<i>Oct., Nov.</i> Dermatology. L. Bowen, Room 201 Bldg. A. <i>Dec., Jan.</i> Syphilis. L. Post, Room 205 Bldg. A.			Obstetrics. R. Newell Room 205 Bldg. A.	
4-5			Surgery. L. Room 201 Bldg. A.	Pediatrics. L. Rotch Room 201 Bldg. A.	Therapeutics. L. Pfaff Bldg. E.	
5-6	<i>Oct., Nov.</i> Ophthalmology Standish Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Bradford Room 201 Bldg. A.	Surgery. R. Lothrop and Greenough Room 201, Bldg. A.	<i>Oct., Nov.</i> Ophthalmology Standish Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Bradford Room 201 Bldg. A.	<i>Oct., Nov.</i> Surgery. L. Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Bradford Room 201 Bldg. A.		

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
<i>Class Exercises</i> 9-10	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic H. Jackson B. C. H.	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic H. Jackson, B. C. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.
10-11	Clinical Surgery. C. A. Porter M. G. H.	Clinical Surgery Nichols, J. B. Blake B. C. H.	Dermatology Clinic Bowen, M. G. H.	G.-U. Surgery Clinical L. P. Thorndike. B. C. H.	<i>Feb., Mar.</i> Pediatrics Clinical L. Morse Infants' Hospital <i>Apr., May</i> Syphilis Clinical L. Post, B. D.	Theory and Practice Clinic Pratt, M. G. H.
<i>Sections</i> 11-1	Section Work.					
2-3					Psychiatry Cowles Room 201, Bldg. A.	
3-4	Obstetrics. L. Green Room 205 Bldg. A.	Surgery Case Teaching J. B. Blake Room 205, Bldg. A.	Obstetrics Conference Swain, Room 205 Bldg. A.	Obstetrics. L. Green Room 205 Bldg. A.	Obstetrics. R. Newell Room 205 Bldg. A.	Psychiatry Clinic Cowles, B. S. H.
4-5	Pediatrics. L. & R. Morse Room 205 Bldg. A.	Pediatrics. L. Rotch Room 201 Bldg. A.	Gynaecology L. or R. Green, Room 205 Bldg. A.	Laryngology Lecture Coolidge, Room 205 Bldg. A.	Gynaecology. L. or R. Green Room 205 Bldg. A.	
5-6	Clinical Medicine Case Teaching Cabot Room 205 Bldg. A.	<i>Feb., Mar.</i> Otolaryngology Lecture C. J. Blake, Room 205 Bldg. A. <i>Apr., May</i> Laryngology Lecture Coolidge Room 205, Bldg. A.	Clinical Medicine Case Teaching Cabot Room 205 Bldg. A.	Otolaryngology Lecture C. J. Blake, Room 205 Bldg. A.		

DEGREES

ON FEBRUARY 21, 1911, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

- Harold Lindsay Amoss, S.B. (*State Univ. of Kentucky*) 1905, S.M.
 (*ibid.*) 1907.
 Richard Sisson Austin.
 George Francis Haskell Bowers, A.B. 1906.
 Arthur Everett Joslyn, S.B. (*Northwestern Univ.*) 1903, A.M. (*Harvard Univ.*) 1904.
 Walter Williamson Manton, A.B. 1905.
 Christian Augustus Nelson, A.B. (*Brown Univ.*) 1903.
 Dan Gish Stine, A.B. (*Univ. of Missouri*) 1907.

M.D. cum laude

Paul Dudley Lamson, A.B. 1905.

ON COMMENCEMENT DAY, JUNE 28, 1911, DEGREES WERE CONFERRED AS FOLLOWS:—

Dr.P.H.

- Edward Bailey Beasley, A.B. (*Johns Hopkins Univ.*) 1902, M.D.
 (*ibid.*) 1906.
 Arthur Isaac Kendall, S.B. (*Mass. Inst. Tech.*) 1900, PH.D. (*Johns Hopkins Univ.*) 1904.

M.D.

- Johann Adolph Bacher, A.B. (*Leland Stanford Jr. Univ.*) 1899.
 Edward Parsons Bagg, Jr., A.B. (*Yale Univ.*) 1907.
 Richard Birnie, Jr., S.B. 1907.
 John Harper Blaisdell, A.B. (*Dartmouth Coll.*) 1907.
 Albert Ferdinand Boretti.
 John George Breslin, A.B. 1908.
 Asa Sheldon Briggs, PH.B. (*Brown Univ.*) 1907.
 Harold Learned Brown, A.B. (*Brown Univ.*) 1907.
 George Ambrose Buckley, A.B. (*Brown Univ.*) 1907.
 Harold Beckles Chandler, A.B. (*Bowdoin Coll.*) 1907.
 Frank Robinson Clark, A.B. (*Wesleyan Univ.*) 1900.
 William Arthur Clark, A.M. (*Univ. of Illinois*) 1907.
 Robert Carlyle Cochrane, S.B. (*Dartmouth Coll.*) 1907.
 William Henry Creamer, A.B. (*Holy Cross Coll.*) 1907.

- Herbert Joseph Cronin.
 Alexander Alfred Day, A.B. (*Clark Univ.*) 1906.
 James Edward Dempsey, A.B. (*Holy Cross Coll.*) 1906.
 Peter James Dulligan, A.B. (*Holy Cross Coll.*) 1907.
 Frank Algar Duston, A.B. (*Univ. of New Brunswick*) 1898.
 John Silveira Enos, A.B. (*Brown Univ.*) 1907.
 Walter Clarence Feeley, A.B. 1908.
 Frank Augustine Finnegan, A.B. (*Holy Cross Coll.*) 1907.
 Philip Joseph Finnegan, A.B. 1908.
 Henry Stone Forbes, A.B. 1905.
 Morris Frank, A.B. 1908 (1907).
 Somers Fraser, A.B. 1907.
 Frank Peyton Gaunt, A.B. (*Univ. of Missouri*) 1906.
 Joseph Isaac Grover, A.B. (*Brown Univ.*) 1907.
 Peter Lyons Harvie, A.B. 1908.
 Prescott Tillinghast Hill, A.B. (*Brown Univ.*) 1906.
 Albert Aurelius Hornor, Jr., A.B. (*Univ. of Virginia*) 1907.
 James Tilley Houghton, A.B. 1908.
 Ellis William Jones.
 Charles Colby Knowlton, A.B. (*Bowdoin Coll.*) 1906.
 Louis Lazarus, A.B. 1906.
 George Chandler Lincoln, A.B. 1905.
 Charles Daniel McCann, PH.B. (*Brown Univ.*) 1907.
 Frank Fremont Marshall, A.B. 1907.
 Edwin Lee Miller, A.B. (*Univ. of Missouri*) 1908.
 George Albert Moore, S.B. 1907.
 Ashley Baker Morrill, S.B. 1908.
 Luther Townsend Nelson, A.B. (*Boston Univ.*) 1905.
 Edward Scott O'Keefe, A.B. 1907.
 Christ. Alexander Pattajo.
 John Harvey Penix, A.B. (*William Jewell Coll.*) 1906.
 Harold Edgar Perry, A.B. 1907.
 Glenn McKillips Pierce, PH.B. (*Westminster Coll.*) 1906.
 Floyd Orton Reed, S.B. (*Univ. of Rochester*) 1907.
 Dexter Newell Richards, A.B. (*Leland Stanford Jr. Univ.*) 1907.
 Russell Richardson, A.B. (*Princeton Univ.*) 1904.
 William Bernard Riley, A.B. (*Holy Cross Coll.*) 1905.
 Carl Merrill Robinson, A.B. (*Bowdoin Coll.*) 1908.
 Henry Ashton Robinson, A.B. 1908.
 William Franklin Temple, Jr., A.B. 1908.
 Austin Bassett Thompson, A.B. (*Williams Coll.*) 1907.
 Victor Veranus Thompson, A.B. (*Bowdoin Coll.*) 1890.
 Harold Grant Tobey, A.B. (*Bowdoin Coll.*) 1906.

Conrad Wesselhoeft.

Rae Wygant Whidden, A.B. 1908.

Robert Atwood Whitford, A.B. 1898.

M.D. cum Laude

Henry Philip Cahill, A.B. (*Holy Cross Coll.*) 1907.

Henry Thorndyke Chickering, A.B. 1907.

George Clymer, A.B. 1905.

Harvard Hersey Crabtree, A.B. 1907.

Paul Waldo Emerson, A.B. 1907.

Richard Spelman Eustis, A.B. 1907.

Jacob Victor Greenebaum, A.B. 1908 (1907).

Carl Arthur Hedblom, A.B. (*Colorado Coll.*) 1907, A.M. (*ibid.*) 1908.

George Adams Leland, Jr., A.B. 1907.

Franklin Bennett McCarty, S.B. (*Univ. of Notre Dame*) 1907.

James Howard Means, A.B. 1907.

James Patrick O'Hare, A.B. 1908 (1907).

Karlton Goodsell Percy, A.B. (*Yale Univ.*) 1907.

Miles Fuller Porter, Jr., A.B. (*Williams Coll.*) 1907.

Russell Firth Sheldon, A.B. 1907.

William David Smith, A.B. 1899.

Paul Dudley White, A.B. 1908.

M.D. (Out of Course)

James Woodbury Twombly, as of the class of 1910.

ADMISSION EXAMINATION

1911

CHEMISTRY

INORGANIC CHEMISTRY

1. Describe the chlorides of sodium, calcium, magnesium, copper, lead, silver, and ammonium.
2. What is the composition of the air ?
3. Explain what is meant by the periodic classification of the elements.
4. How many grams of zinc must be employed to obtain one hundred litres of hydrogen ? $H = 1$, $Zn = 65$, $O = 16$, $N = 14$. Wt. of 1 litre of air = 1.29 g.
5. What happens when the following substances are heated moderately and at high temperatures in air: sulphur, phosphorus, mercury, limestone, blue vitriol, ammonium chloride, copper, gold ? When possible, write reactions.

ORGANIC CHEMISTRY

1. Write the formulas of acetylene, lactic acid, aniline, formaldehyde, and chloroform.
2. What is the usual process to determine the per cent composition of an organic compound ?
3. How may acetic acid be prepared from plant products ?
4. Write the formulas of all substances corresponding to the empirical formula C_5H_{12} . What are the properties of this class of substances ?
5. What is the meaning of the terms: isomer, acid chloride, acimetric, valence ?

EXAMINATION PAPERS

(*Annual Examinations, 1911*)

First-Year Studies

ANATOMY — Professor DWIGHT

1. Describe the sternum. How many costal cartilages join it? Describe their arrangement and the joints. Does any other bone join the sternum? If so, describe the joint.
2. Describe the portal circulation. What veins empty into the inferior vena cava?
3. Describe the relations of the inferior surface of the diaphragm.
4. Describe the general arrangement of the fasciae of the male perineum and pelvis.
5. Describe the course and relations of the motor tract from the cortex to the spinal cord.
6. Describe the course of the carotid artery from its origin to that of its terminal branches.
7. Describe the course of the fifth cranial nerve from its origin in the central nervous system till it leaves the skull.
8. Describe the origin, insertion, and innervation of the muscles in the gluteal region.

HISTOLOGY AND EMBRYOLOGY — Professor MINOT

[Each student is given two sections to correspond with the first two questions given below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures not shown in his preparations will be considered to have failed in all his answers.]

1. Write a brief account of the development and histological structure of this organ. Make drawings from the specimen to illustrate details.
2. Draw and describe the specimen.
3. Define the following structures of the human embryo: (1) Amnion; (2) allantois; (3) yolk-sack; (4) Wolffian body.
4. State all the parts or organs of the body in which you have personally observed stratified epithelium to occur.
5. Describe the leucocytes of adult blood.

PHYSIOLOGY — Professor CANNON

[Answer any five questions. Mention, where possible, experimental evidence in support of your statements.]

1. Discuss tetanic contraction of muscle and its occurrence in the body.
2. Discuss the effects of changes of temperature on physiological processes.
3. Discuss the adaptive regulation of the heart beat.
4. State the factors concerned in coagulation of blood, and conditions affecting the process.
5. How is gastric secretion normally started and maintained?

For Medical Students.

6. Describe and give evidence for the resonance theory of hearing.

For Dental Students.

6. Discuss the influence of various factors upon the activity of the respiratory centre.

BIOLOGICAL CHEMISTRY — Professor FOLIN

1. Give the approximate percentage composition of wheat-flour, of milk, and of meat.
2. What is the effect of withdrawing carbohydrates from the food on the metabolism?
3. Discuss the composition and the function of bile.
4. Name and characterize four different carbohydrates.
5. Write the graphic formulae of glucose, creatinine, stearic acid, cystin, and tyrosin.
6. Give approximately the composition of a normal urine containing (a) 15 grams of nitrogen, (b) 6 grams of nitrogen.
7. Describe how uric acid is determined in urine.
8. Name twelve of the ultimate cleavage products of proteins and indicate how any two are probably united in the protein molecule.
9. Describe two methods for the preparation of urea.
10. Discuss the significance of the osmotic pressure in the human body.

Second-Year Studies

BACTERIOLOGY — Professor ERNST

1. How is the reaction of nutrient bouillon determined? Describe the methods.
2. What is the evidence that spirochaeta pallida is the cause of syphilis?
3. What bacteriological methods are applied in the diagnosis of typhoid fever? Describe in detail.
4. What are the general conditions modifying the pathogenic action of bacteria?

PATHOLOGY — Professor COUNCILMAN

EXAMINATION IN PATHOLOGY

1. In what tissues of the body are lesions found in pernicious anaemia? Describe the lesions which will establish the post-mortem diagnosis of the disease.

2. The course and possible final lodgment of an embolus originating from a thrombus of the left popliteal vein. The results from a small embolus entering the renal artery giving gross and microscopic description.

3. What are the characteristics of a malignant tumor?

4. Describe the gross appearance of the lungs in atelectasis, emphysema, chronic passive congestion, broncho-pneumonia, lobar-pneumonia.

5. The mitral orifice of the heart of an individual of 30 years has been reduced in consequence of previous disease to a circumference of 4 cm. Describe the condition which will be found after death in the heart, lungs, and liver.

6. Discuss amyloid degeneration, giving character of amyloid, conditions under which it is formed, tissues and organs chiefly affected, describing in detail changes in the liver.

EXAMINATION IN NEUROPATHOLOGY

[Write on separate paper.]

1. Origin, course, and destination of the main neurones of the direct cerebellar tract of Flechsig. Name some conditions in which this tract may be injured. What is its structural condition in tabes dorsalis? What is its functional condition in tabes dorsalis?

2. By what routes do impulses enter and leave the cerebellum? What degenerations are produced by the extirpation of one cerebellar hemisphere and what functional effect follows?

EXAMINATION IN PARASITOLOGY

[Write on separate paper.]

1. Give illustrations of injuries inflicted by animal parasites through (a) mechanical, (b) biochemical or toxic agencies, and (c) when acting as accidental carriers of bacteria.

2. Describe fully the life cycle of some protozoan parasite and that of its insect carrier.

PREVENTIVE MEDICINE AND HYGIENE — Professor ROSENAU

1. Discuss decomposition with special reference to foods. Mention kinds of decomposition, products, and their effects. Prevention.

2. The city of X in Mass., population 250,000, received its water supply from a polluted river. On Feb. 6th, eight cases of typhoid are reported; Feb. 7th, seventeen cases; Feb. 8th, thirty cases. The disease is generally distributed and of a severe type.

What is the probable cause of the outbreak?

On July 10th twelve cases of typhoid are reported; July 11th, eighteen cases; July 12th, twenty-four cases; mostly confined to one section of the city and especially prevalent among the women and children. The disease is milder in type.

What is the probable cause?

What measures would you take to suppress the outbreaks?

3. Discuss the hereditary transmission of disease and relation to eugenics.

Name a disease transmitted hereditarily.

“ “ “ “ “ “ but sex limited.
“ “ “ “ “ congenitally.

4. Name two diseases associated with the soil.

“ “ “ that may be air-borne.
“ “ “ conveyed in water.
“ “ “ transmitted by milk.
“ “ “ insect-borne.

Third-Year Studies

MATERIA MEDICA AND THERAPEUTICS — Professor PFAFF

1. Action and uses of ergot.
2. Action and uses of potassium iodide.
3. Action and uses of strychnine.
4. Actions and uses of cocaine.
5. Action and uses of thyroid gland.
6. Treatment of chronic circulatory diseases.
7. Give in detail treatment of acute Bright's disease.
8. Give in detail treatment of constipation.
9. Write prescriptions for the following, avoiding abbreviations and giving full directions to the patient: —

- | | |
|---------------------|--------------------|
| (a) Iron. | (d) Strophanthus. |
| (b) Nitroglycerine. | (e) Quinine. |
| (c) Caffein. | (f) Carbolic acid. |

THEORY AND PRACTICE OF PHYSIC — Professor CHRISTIAN

1. Discuss varieties and differential diagnosis of chronic non-icteric pigmentation of the body surfaces.

2. Discuss the etiology, symptomatology, diagnosis, and treatment of uncinariasis.

3. What diagnostic inferences would you draw from the following blood pictures?

(a) Haemoglobin 75%; red blood corpuscles 4,000,000; white blood corpuscles 8000; eosinophiles 27%; no other morphologic abnormality.

(b) Haemoglobin 35%; red blood corpuscles 2,225,000; white blood corpuscles 6500; very distinct achromia; no other morphologic abnormality.

(c) Haemoglobin 10%; red blood corpuscles 800,000; white blood corpuscles 2560; lymphocytes 67%; polymorphonuclear neutrophils 27%; 1 normoblast to 1000 leucocytes; slight poikilocytosis; no megaloblasts.

All patients are females between 20 and 33 years of age.

4. Describe the physical signs of aortic insufficiency and discuss the relation of this cardiac lesion to syphilis.

5. Give an account of the illness of a patient with renal tuberculosis.

6. Give an account of the physical condition of the same patient as revealed by the usual methods of physical examination.

7. Give the method of treatment that you would use in a case of chronic parenchymatous nephritis (glomerulonephritis). Write prescriptions for all drugs used.

8. State the physical signs of lobar pneumonia. How would you explain pain referred to the shoulder during the course of pneumonia?

9. Discuss the differential diagnosis between catarrhal jaundice and cirrhosis of the liver.

10. Blood is present in the stool of a patient more than 45 years of age. What varying diagnostic significance would this have dependent on variations in appearance, amount, and frequency of occurrence of the blood?

CLINICAL MEDICINE—Professor SHATTUCK

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive though correct diagnosis. Write out all prescriptions in full.]

CASE 1. — A skilled mechanic of 28, single, was always well until two and a half years ago, when he began to be troubled with gas and colicky pain in his bowels, present at irregular intervals, day and night. Food seems to make absolutely no difference in his symptoms, and his appetite has remained good throughout. Recently he has had less gas and is troubled by it only at night, when it causes insomnia rather than pain.

Fifteen months ago he had bronchitis which lasted a month. The cough was slight and there was no pain. For the last two years he has done practically no work and has lived out of doors, as any attempt at work produces increased distress from gas. He wakes in the morning lame all over, and with a headache which lasts until after his bath. Of late his eyes have been troubling him, with irregular periods of aching.

All his life his bowels have been costive, four or five days sometimes passing without any movement, though there seems to be no accumulation. During the last two years he has had a movement daily but the feces sometimes consist of dry pellets. The passage of gas is always up, never down.

As a rule he sleeps well, but if he tries to work he has insomnia and this results in sweating. He never sweats when he sleeps. He has had several spells of palpitation of the heart due to unknown causes. He takes no liquor or drug. He has no cough. At present his chief

complaint is of pains in his shoulders and weakness of the legs. His best weight is 149, his present weight 144 pounds.

On physical examination the blood pressure is 125. There is a systolic murmur at the apex of the heart, transmitted two inches into the axilla. The pulmonic is louder than the aortic second. The apex is just below the fifth rib in the nipple line. The front of the right lung shows slight increase of tactile fremitus, and here and there a patch of cog-wheel breathing. Otherwise the lungs are negative, as is the abdomen and physical examination otherwise. Temperature, pulse, and respiration are normal.

Diagnosis? Prognosis? Treatment?

CASE 2. — A man of 48 with unimportant family history is seen in December. He had typhoid at 17, gonorrhea at 21, denies syphilis. He has used alcohol and tobacco in moderation. Four or five years ago he weighed 230; under diet and exercise he has lost and now weighs 190.

For the past year he has had some shortness of breath, some discomfort in the epigastrium, especially if he exercises shortly after eating. The discomfort is not severe and lasts but a short time. For the past few months he has been troubled with asthma, especially at night, and often has been waked from sleep by difficult breathing.

Physical examination shows a stout man, face fat, eyes somewhat puffy, pupils equal and react, moderate Riggs' disease. No enlarged glands. Examination of lungs negative. The heart's apex is in the 6th space, one inch outside mid-clavicular line, apex beat forcible, rate 95. At the apex the first sound is replaced by a systolic murmur, harsh, transmitted to axilla; the second sound at the apex is loud. At the aortic area a systolic murmur is heard, the second sound is accentuated and a soft diastolic murmur is also heard in this area. The right side of the heart is not made out much enlarged. There is some peripheral arterio-sclerosis. The blood pressure is 200. Abdomen large, liver and spleen not felt, no ascites. Knee jerks present, no oedema. A single specimen of the urine is normal, acid; S. G. 1020, no bile, no sugar, a very large trace of albumin. Sediment shows a few abnormal blood globules, occasional hyaline and granular cast with cell adherent; no fat. Examination of blood shows nothing remarkable. Temperature normal. Examination of eyes shows no albuminuric retinitis, some vessel tortuosity. Wasserman reaction negative.

Diagnosis? Prognosis? Treatment?

CASE 3. — A clerk of 46 was seen November 14, 1910. A week before, at midnight, he awoke with intense pain in the left hypochondrium, whence the pain soon spread to the epigastrium, right hypochondrium, and right axilla. This attack lasted about two hours and was extremely severe. He then fell into a doze and after 3 A.M. got to sleep. The next day he felt weak and sore across his abdomen. In the afternoon he noticed that his urine was dark colored and his eyes yellow. Since the attack just described he has had no pain. There is much itching of the skin, and the stools are straw colored. There is little or no trouble with digestion at the present time, but on cross questioning it is learned that he has had indigestion during most of the past summer and has vomited very frequently, although there has been no pain. His appetite has been good throughout and his

sleep satisfactory. His bowels have moved freely with laxatives. Since the 1st of September there has been no vomiting, but any diet other than crackers and milk is apt to disagree with him. In May he weighed 160, now 135.

On physical examination there was emaciation and intense jaundice. A gland the size of a marble was felt above the right clavicle near the attachment of the sterno-mastoid muscle. The chest showed nothing abnormal except that fine crackling rales were heard at the bases of both lungs at the beginning of the examination; later these rales disappeared. The upper portion of the abdomen was moderately spastic and slightly dull on percussion. Nothing definite could be made out beneath the muscles. The upper border of liver dulness was at the fifth rib. The urine: 30 ounces in 24 hours, specific gravity 1019, a large trace of albumin and much bile. In the sediment a considerable number of granular casts strongly yellow colored, and sometimes containing mononuclear cells.

Blood examination showed	red cells	4,100,000
“ “ “	white “	9,000
“ “ “	hbg. “	65

In the stained smear there was moderate achromia and some variation of the size and shape of the red cells.

Polynuclear cells 74%, lymphocytes 27%, eosinophiles absent.

Diagnosis? Prognosis? Treatment?

PEDIATRICS — Professor ROTCH

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case, giving the differential diagnosis, prognosis, and treatment: —

A boy, twelve months old, was the first child of healthy Armenian parents. There had been no miscarriages. He was healthy at birth. He had measles when two months old and chicken-pox when six months old. At night he was fed partly on the breast and partly on condensed milk. During the day he was fed on some modification of cow's milk at a day nursery. He had vomited off and on until he was five months old and had always had diarrhoea from time to time. He had always had a discharge from his nose and coughed occasionally. Enlargement of the abdomen was noticed when he was ten months old. This enlargement had increased steadily and was the cause of his being brought to the hospital. As a rule he seemed to feel fairly well. At other times, however, he seemed sick. He was seen when one year old.

Physical Examination. — He was poorly developed and nourished. His skin was dry. He was very pale, the pallor being decidedly yellowish in tint. The shape of his head was normal. The anterior fontanelle was 4 cm. in diameter and somewhat depressed. There was a profuse purulent nasal discharge. He had two upper middle incisor teeth. The tongue was clean. The throat was normal. He was able to hold up his head. He was able to sit alone but his back showed a marked general kyphosis; this disappeared when he lay on on his back. There was a marked rosary. The heart and lungs were

normal. The abdomen was much enlarged, the swelling being most marked on the left side, especially in the upper part. The edge of the liver was sharp and in the nipple line was felt midway between the costal border and the umbilicus. The upper part of the liver flatness was in the 4th intercostal space. The spleen was felt running out from between the ribs in the left mammary line downward and forward to just inside the umbilicus, then upward and backward under the costal border in the left posterior, axillary line. The surface was hard, the edge rounded, the notch distinct. The rest of the abdomen was tympanitic. The extremities were normal except for a considerable enlargement of the epiphyses at the wrist. There was no efflorescence and no mucous patches or rhagades. The cervical and inguinal lymph nodes were the size of small beans, the axillary and supratrochlear were not palpable. Pulse 100. Temperature 99. Respiration 30.

The urine showed nothing abnormal.

Blood: Hemoglobin	58%
Red corpuscles	4,408,000
White corpuscles	47,220
Small mononuclear	36.5%
Large mononuclear	9.5%
Polynuclear neutrophiles	50.5%
Eosinophiles	1.0%
Myelocytes	2.5%

There was moderate variation in the size and staining qualities of the red corpuscles but very little in their shape. In counting 500 white cells one microblast, twelve normoblasts, and eighteen macroblasts were seen.

2. State the average weight of infants at birth and the normal increase in weight during the first twelve months of life.

At about what age is the secretion of the salivary glands established both as to quantity and as to amylolytic property?

3. A baby, five months old, weighing ten pounds, is having seven feedings of five ounces each of a mixture containing 4% fat, 7% of sugar, and 2% of proteids, but no lime water. The baby is vomiting several times daily and is somewhat constipated. Give a prescription to be prepared at the laboratory, for a mixture suitable for this baby. This mixture must cover both the caloric and proteid needs. State what these are, and how many calories and how many grammes of proteid per kilo of body weight your mixture gives.

4. How do you distinguish between casein and fat curds in infants' movements? What is the significance of a green color in the infant's movements? What are the normal colors of the infant's movements when it is taking human milk, modifications of cow's milk, foods containing a large amount of starch, and foods containing a malt sugar?

5. What are the diagnostic characteristics of the cerebrospinal fluid in the following conditions?

- A — In health.
- B — In tuberculous meningitis.
- C — In epidemic cerebrospinal meningitis.
- D — In pneumococcus meningitis.
- E — In the early stages of acute anterior poliomyelitis.

6. (a) What are the chief points in the differential diagnosis of diphtheria and other pseudo-membranous inflammations of the throat?
 (b) Mention the typical appearances in the throat and mouth seen in measles and in chicken-pox.

SURGERY — Professor RICHARDSON

1. Describe the symptoms and signs by which a diagnosis of tuberculous hip disease may be made.
2. Describe in detail the surgical treatment of circumscribed chronic abscess of bone [Brodie's abscess].
3. Describe in detail the sterilization before operation of (1) patients' skin, (2) surgeons' hands, (3) instruments, (4) gauze sponges.
4. Describe a case of acute tetanus, four days' incubation; blank cartridge wound of hand; treatment.
5. Diagnosis and treatment of impacted fracture of the neck of the femur.
6. Discuss non-operative and operative treatment of simple transverse fracture of patella, working man of forty, in sound condition.
7. Treatment of empyema.
8. Symptoms and treatment of cancer of the breast: (1) operable, (2) non-operable.
9. In a desperate abdominal emergency which does not permit time for detailed study, what symptoms of hemorrhage, infection, or intestinal obstruction would demand exploration of the abdomen?
- 10 Describe the essential differences between the X-ray picture and an ordinary photograph.

CLINICAL SURGERY — Professor RICHARDSON

CASE 1. — The following history was given me on Monday, January 2, 1911, by the attending physician, a graduate of one of the best medical schools, who had practised for thirty-five years in a small city. This history is repeated verbatim here.

W. E. F., aged 79, a man of education and refinement, strong, well built and well preserved, of medium weight, began, eight weeks ago to have right-sided sciatica. This sciatica has rather increased than diminished. Of late the deep-seated pain has been worse than ever. The patient has not been able to use the right leg in going up stairs. Yesterday he said, "As I was going up stairs, resting the weight on the right leg, it gave out all at once, when I started to put up the right leg. I came down (*i. e.*, fell) with a whirl on the left side. The pain in the right leg was excruciating, and I could not move it any more. The leg below the knee was all right; it was the right thigh that was affected. I was instantly conscious that something terrible had happened. Moving the limb caused pain beyond endurance in the right hip."

The doctor said that the seat of pain was from the hip to the knee along the line of the sciatic nerve. There was no loss of sensation or

soreness externally. Until the attack, eight weeks ago, there was no pain. The patient has had rheumatism, but never on that side.

For six years, although he has kept about his work, he has had a good deal of trouble in emptying the rectum and bladder.

In this case the doctor had made his diagnosis, and, under ether, had attempted to remedy the difficulty, but without success. The injury, whatever it was, was as painful as ever, and the deformity to be described remained the same.

I found the patient lying in bed, with the right lower limb in an abnormal and uncomfortable position. There was a marked prominence at and below the great trochanter. The prominence was excessively tender, rounded, smooth, and became lost in the hip above and the thigh below. It was impossible to move the limb in the slightest without causing unbearable pain. The patient had been kept under ether a long time by the manipulations of the physician, and it was not deemed advisable to etherize again until the X-ray had been used. No mention was made of crepitus. The physician said that the deformity could easily be reduced, but immediately recurred. The foot, under ether, could be easily everted or inverted at will.

Two of the best Boston experts on the X-ray made a complete and satisfactory examination, upon the strength of which the proper treatment was outlined and followed.

Upon these facts, please state, first, the pathological possibilities; and, secondly, the probabilities.

What would you have done if called to this case as an expert in surgical diagnosis and treatment?

CASE 2. — Miss F. (Vol. LXXI, page 1), a woman of 45, came to see me on April 6, 1911. She had had trouble with the left breast since last summer (August). There was swelling without pain. The physician ordered antiphlogistin, with which the breast has been poulticed ever since.

In the family history there was cancer in the cases of the mother and the grandmother. The patient's aunt had a benign ovarian tumor.

The left breast was symmetrically enlarged, hard, tender, and along the axillary border infiltrated. The skin was of a purplish color, with enlargement of superficial veins. The axilla was filled with a hard mass, irregular in outline, and apparently made up of conglomerated lymph-glands, which extended high up toward the first rib. Nothing could be felt above the clavicle.

What should you say of the diagnosis, the past and future treatment? Supposing that the patient was an only child and the father begged for operation, what would you do?

Would your diagnosis justify an operation? If so, on what grounds? Would operation in this case have any chance of permanent success? What examinations would you make to be sure that there were no contra-indications absolutely forbidding operations?

Can you think of any justification for operation, assuming that thorough removal is absolutely impossible?

What, if anything, in so unfavorable a case does the surgeon owe the art of surgery or his own reputation, when considering the wisdom of surgical intervention?

CASE 3. — On Saturday morning, April 22, 1911, I was called to see Mr. F., a man of 56. The physician gave me the following history: "For many years the patient has had indigestion, with 'bilious attacks.' Wednesday, after a supper of lobster salad and strawberries, he had stomach-ache. Thursday I saw him for the first time. There was vomiting, with pain and tenderness in the right iliac fossa. The temperature was normal; the pulse 100°. At 10 p.m. the temperature was 99° and the pulse 110. An opiate was given. Since the attack there have been three movements of the bowels. The chief symptoms have been pain and vomiting. There have been no local signs. The abdomen has been flat and the movements have been loose. On Friday he became more comfortable. On Saturday, after a night of hiccoughs, the temperature was 97.8°, the pulse 110. The whole abdomen had become rigid, but the vomiting and hiccough had ceased, and there had been a movement of the bowels, after which the patient felt very much relieved."

The physical examination showed a man of older general appearance than his age would indicate. The expression was one of anxiety and suffering. The abdomen was everywhere rigid. There was marked tenderness in the right lower quadrant, without dullness or tumor. The rectal examination was negative. The heart and lungs were negative. The temperature was 99.2°; the pulse 115. In quality the pulse was poor; it was without volume — compressible.

What would you advise in such a case?

What is the diagnosis and what the prognosis?

OBSTETRICS — Professor GREEN

1. What is the normal average inclination of the plane of the pelvic brim? If the angle of inclination is abnormally large, what is the clinical result? In what way may the abnormal inclination be corrected in labor?

2. What are the symptoms and clinical findings of unruptured tubal pregnancy? If diagnosis is made before rupture, what is the rational treatment?

3. In a medico-legal inquiry on what grounds could you certify, in the case of a woman nearly at full term, as to whether she is a primigravida or a multigravida?

4. Under what types may the vomiting of early pregnancy be classified? How would you determine to which type a given case belongs?

5. What is the normal mechanism of spontaneous M. D. P. delivery? What are the factors essential to this mechanism? In the absence of any or all of these factors, how may normal mechanism be promoted and delivery effected?

6. A consultant called to see a multipara who has been in labor eighteen hours finds a tired woman, with pulse of 110, whose former labors have been normal and, except for the first, of not more than ten hours' duration. Examination shows a normal pelvis; a foetus, estimated to weigh nine pounds, in right position, with heart rate of 140; the os uteri fully dilatable; the membranes ruptured. A diagnosis

of F.L.A. is made. The presenting part is evidently firmly engaged. How would you proceed in the management of this case?

7. An emergency call brings an obstetrician to a woman delivered four hours previously, whose medical attendant left her one hour after delivery and is reported to have responded to a distant call. The woman is found to be pale and restless, with a pulse of 160. The nurse reports that the labor was normal; that the second stage lasted not more than half an hour; that the placenta came away in ten minutes; and that the patient seemed to be in good condition until an hour after the doctor had left, when she, the nurse, became alarmed by the increasing pallor of the patient and by her weakened and rapid pulse. The nurse had examined the vulvar pad several times; but it showed no evidence of haemorrhage.

Take up the case, make a diagnosis, and state your treatment.

8. What do you understand by therapeutic abortion? What are the leading indications for the procedure, and what is the most approved technique in a primigravida when haste is unnecessary? How should this procedure be safeguarded against unnecessary or injudicious performance?

9. In cases of uterine infection how do the clinical course and the pathological anatomy vary according as the infection is caused by virulent pyogenic organisms, or by less virulent or putrefactive organisms?

10. To what infections is an infant exposed during birth and the following two weeks? By what prophylactic measures may the possibilities of these infections be minimized?

GYNAECOLOGY—Professor GREEN

1. Of what pelvic lesions is dysmenorrhoea a commonly associated symptom? To what conditions is dysmenorrhoea generally due when no pelvic lesions can be found?

2. Dyspareunia: most frequent causes? In what ways may a careful inquiry regarding this symptom prove a guide to a probable diagnosis as to underlying pelvic anomaly or disease, or possibly to a diagnosis of a general cause?

3. What are the most common exciting causes of pelvic peritonitis? By what routes may infection reach the pelvic peritoneum? When once the pelvic peritoneum has become infected what is the fate of the general peritoneum, and on what does this fate depend?

4. How are fibro-myomata of the uterus classified according to their situation? With which class of tumors are haemorrhage, sterility, and abortion most often associated? To what extent and under what circumstances are fibro-myomata a cause of dystocia? What symptoms attributable to these tumors make hysterectomy or myomectomy advisable?

DERMATOLOGY — Professor BOWEN

1. How do you differentiate between the alopecia of (a) alopecia areata, (b) ringworm, (c) syphilis, and (d) favus.
2. The treatment of alopecia furfuracea.
3. Describe a typical case of pityriasis rosea.
4. The treatment of dermatitis venenata.
5. Make a rough sketch of the microscopical anatomy of the skin, labelling the different layers and the appendages of the skin.

SYPHILIS — Professor POST

1. How soon after infection may you expect constitutional symptoms?
2. What signs would lead you to suspect hereditary syphilis in a child about 8 or 10 years old?
3. If you wish to submit a specimen of blood to an expert for a Wasserman examination what precautions must be taken?
4. What other conditions beside actual syphilis may give a positive Wasserman? What is the value of a negative Wasserman?
5. Give your idea of the value of Salvarsan in the treatment of syphilis.

NEUROLOGY — Professor PUTNAM

1. (a) What is the Argyll-Robertson pupil? In what diseases does it occur? (b) Effect on the eye-ball of paralysis of the left sixth nerve?
2. (a) What is the result of a destructive lesion of the ventral horns of the cord? (b) Of the dorsal columns? (c) Of the lateral (pyramidal) tracts? Cite diseases in which these lesions occur either alone or combined.
3. Symptoms and signs of transverse lesion of the cord (a) in the thoracic region, (b) through the lumbar enlargement.
4. Brief account of the theory and method of Freud's psycho-analysis.

PSYCHIATRY — Dr. COWLES

1. Describe briefly the reflex arc and the symptoms that may indicate variations and differences of level of the receptive and effective thresholds.
2. What variations appear in the relation of the emotional tone to changes in the organic sensations?
3. Describe imperative ideas and the constant factors in all cases.
4. CASE. — A young woman; American; age 22; single; only child of nervous parents, — always delicate but well cared for, bright and happy. At 14 yrs. catamenia — irregular and painful; at 15, entered high school, — nervous, and changed to private school. At 17, after trouble with teeth, and immediately following the Christmas

holidays, she became frightened thinking burglars in her room, — insomnia 3 weeks and improved a month later. In autumn of that year went to a Seminary and felt better than for 7 years. On returning to school in January, 1907, age 18, was homesick, slept poorly and went home; later cried much, feared she would die; after this became confused, deluded, distractible, flighty and incoherent in talk, and irritable, — excitable but not happy; was admitted to McLean Hospital February, 1907, — second attack. In a few days she became more quiet and typically retarded and confused; two weeks later had gained steadily, but had some self-reproach and feared that her parents were dead; 3 weeks later, “stands about rarely speaking; slow in movement.” In May improving steadily; still slow and hesitating in action, but perfectly clear mentally; in July, 1907, was discharged from the Hospital.

She continued in good health, usually, till August, 1910; then gradually grew tired, had “electric and psychic treatments,” and improved. About Christmas became over-tired, — then excited, irritable, and unmanageable at home, and was again committed to the McLean Hospital January 5, 1911, — third attack.

In hospital: — flighty in talking, moody, laughing or crying. January 24, — improving and makes a good impression, quiet but looks alert, answers questions relevantly but only when spoken to. Appetite good, weight now 118 lbs., though normally 132 lbs. Complains of noise made by other patients though herself the chief offender at times, with spells of swearing. Will not admit that she is not perfectly well.

Give diagnosis, — analysis of symptoms and course of each attack, — treatment, and prognosis.

OPHTHALMOLOGY — Professor STANDISH

1. Glaucoma: Varieties, clinical history, treatment.
2. Diagnosis of trachoma. What are the common complications?
3. Zonular (lamellar) cataract: History and differential diagnosis.
4. Give the treatment of an ulcer of the cornea.
5. Describe the field of vision in glaucoma, toxic tobacco amblyopia, detachment of the retina.

OTOLOGY — Professor BLAKE

1. Describe the course and general distribution of the nerves entering the internal auditory canal.
2. What relation has the action of the levator and tensor palati muscles to the function of the middle ear?
3. Describe the objective symptoms of a fluid accumulation in the middle ear.
4. What method would you preferably employ in testing the hearing for tones of medium low pitch?
5. What is the effect upon the hearing of a relaxation of the drum-head?
6. What is Meniere's complex of symptoms?

LARYNGOLOGY — Professor COOLIDGE

1. Describe vaso-motor rhinitis.
2. Name three surgical routes for opening the maxillary antrum.
3. Describe the conditions leading to the formation of peritonsillar abscess.
4. The diagnosis and treatment of secondary syphilis of the fauces.
5. Draw and describe the normal larynx as seen in the laryngoscopic mirror.
6. What appearances in the larynx would make you suspect incipient laryngeal tuberculosis?

THE MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

Amoss, Harold Lindsay, S.B. (<i>State Univ. of Kentucky</i>) 1905, S.M. (<i>ibid.</i>) 1907, M.D. (<i>Harvard Univ.</i>) 1911,	Cobb, Ky.
Anderson, William Gilbert, A.B. (<i>Yale Univ.</i>) 1883, A.M. (<i>ibid.</i>) 1902, M.Sc. (<i>ibid.</i>) 1903, M.D. (<i>Western Reserve Univ.</i>) 1909,	New Haven, Conn.
Mann, Thomas Allen, M.D. (<i>Univ. of Maryland</i>) 1903,	Durham, N.C.
Schorer, Edwin Henry, S.B. (<i>Univ. of Missouri</i>) 1902, M.D. (<i>Johns Hopkins Univ.</i>) 1906,	Plymouth, Wis.
Sheppard, Philip Albert Edward, M.D. 1910,	Mattapan.

FOURTH CLASS

*Alter, Samuel Mitchell, A.B. 1909 (1908),	Los Angeles, Cal.
Baker, Donald Vinton, A.B. 1908,	Roxbury.
Barton, Lyman Guy, Jr., A.B. (<i>Princeton Univ.</i>) 1908,	Willsboro, N.Y.
†Bauer, Louis Hopewell, A.B. 1909,	Jamaica Plain.
Behlow, William Wallace, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1907,	Redlands, Cal.
Bell, Richard Dana, A.B. 1908,	Somerville.
Binney, George Hayward, Jr., A.B. 1908,	Boston.
Brennan, Daniel Clarke, A.B. 1907,	Cambridge.
†Coffin, Whitman King, A.B. 1909,	W. Medford.
Coller, Frederick Amasa, S.M. (<i>So. Dakota State Coll.</i>) 1908,	Los Angeles, Cal.
Crabtree, Ernest Granville, Ph.B. (<i>Univ. of Wooster</i>) 1906,	Zanesville, O.
Diepenbrock, Anthony Bernard, A.B. (<i>Santa Clara Coll.</i>) 1908,	Sacramento, Cal.
Donovan, Joseph Aloysius, A.B. (<i>Bates Coll.</i>) 1908,	Houlton, Me.
Elliott, Malcolm Robertson, A.B. (<i>Acadia Univ.</i>) 1908,	Clarence, N.S.
Farnsworth, Earle Edwin, A.B. (<i>Cornell Univ.</i>) 1903,	Grand Island, Neb.

* A.B. awarded 1908.

† Admitted in 1908 with work for degree completed.

Grady, Thomas Francis, A.B. (<i>Holy Cross Coll.</i>) 1908,	<i>Clinton.</i>
Hackett, Lewis Wendell, A.B. 1905,	<i>Alameda, Cal.</i>
Haight, Harry William, A.B. (<i>Princeton Univ.</i>) 1907,	<i>Mendota, Ill.</i>
Hammond, John Wilkes, Jr., A.B. (<i>Dartmouth Coll.</i>) 1907,	<i>Cambridge.</i>
Hersam, Norman Paul, S.B. (<i>Univ. of California</i>) 1908,	<i>Stoneham.</i>
Hinton, William Augustus, S.B. 1905,	<i>Kansas City, Kan.</i>
Howard, Herbert Handy, S.B. (<i>Tufts Coll.</i>) 1909,	<i>Somerville.</i>
Hull, Ira Butler, A.B. (<i>Bates Coll.</i>) 1908,	<i>Greene, Me.</i>
Knowlton, Don Jerome, A.B. 1908,	<i>Brookline.</i>
Lacey, Walter Maurice, A.B. (<i>Williams Coll.</i>) 1908,	<i>Cheyenne, Wyoming.</i>
Look, Percy Jonathan, A.B. (<i>Boston Univ.</i>) 1908,	<i>Farmington, Me.</i>
Lyman, Henry, A.B. 1901,	<i>Boston.</i>
Meyers, Alfred Edward, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1907,	<i>Spokane, Wash.</i>
Miller, Alvah Strong, A.B. (<i>Univ. of Rochester</i>) 1907,	<i>Rochester, N. Y.</i>
Minot, George Richards, A.B. 1908,	<i>Boston.</i>
†Morse, Sterne,	<i>Brookline.</i>
†Murphy, Joseph Leroy, A.B. 1909,	<i>Taunton.</i>
O'Shea, William Michael, A.B. (<i>Gonzaga Coll.</i>) 1907,	<i>Spokane, Wash.</i>
Parker, Raymond Brewer, S.B. (<i>Dartmouth Coll.</i>) 1908,	<i>Reading.</i>
†Perlstein, Isidor,	<i>St. Louis, Mo.</i>
Porter, Donald Wallace, A.B. (<i>Yale Univ.</i>) 1908,	<i>New Haven, Conn.</i>
Pratt, Ezekiel, A.B. 1909,	<i>Cohasset.</i>
Prizer, Edward Levis, A. B. 1908 (1907),	<i>So. Orange, N. J.</i>
†Rackemann, Francis Minot, A.B. 1909,	<i>Readville.</i>
Ramsey, Wayne Stevenson, A.B. (<i>Washington and Jefferson Coll.</i>) 1908,	<i>Coraopolis, Pa.</i>
Reggio, André William, A.B. 1908,	<i>Boston.</i>
†Rockey, Eugene Watson,	<i>Portland, Ore.</i>
Rogers, Orville Forrest, Jr., A.B. 1908,	<i>Dorchester.</i>
Rounsefell, Clifford George, A.B. 1907,	<i>Cambridge.</i>
Smillie, Wilson George, A.B. (<i>Colorado Coll.</i>) 1908,	<i>Eaton, Colo.</i>
Talbot, John Edward, A.B. 1902, LL.B. 1905,	<i>Holliston.</i>

† Admitted by special vote of the Administrative Board prior to May 1, 1909.

† Admitted in 1908 with work for the degree completed.

Thomas, Charles Francis, Jr., A.B. (<i>Bowdoin Coll.</i>) 1907,	<i>Caribou, Me.</i>
Tribou, Howard Arthur, S.B. (<i>Colby Coll.</i>) 1908,	<i>Rockport, Me.</i>
† Wilson, Philip Duncan, A.B. 1909,	<i>Columbus, O.</i>
Woody, MacIver, A.B. (<i>Richmond Coll.</i>) 1905, A.B. (<i>Harvard Univ.</i>) 1907,	<i>Louisville, Ky.</i>

THIRD CLASS

Alcuzar, Isaac, A.B. (<i>Univ. of Wisconsin</i>) 1908,	<i>Boston.</i>
Blake, Francis Gilman, A.B. (<i>Dartmouth Coll.</i>) 1908,	<i>Brookline.</i>
Borden, Russell Potter, A.B. (<i>Mt. Allison Coll.</i>) 1908,	<i>Lower Canard, N.S.</i>
Brown, Herbert Rutherford, S.B. (<i>Univ. of Rochester</i>) 1901,	<i>Jamaica Plain.</i>
Buffum, William Potter, Jr., A.B. (<i>Brown Univ.</i>) 1909,	<i>Newport, R.I.</i>
Butler, Fergus Almy, A.B. 1908,	<i>Danvers.</i>
Carter, James Charles, A.B. (<i>De Pauw Univ.</i>) 1909,	<i>Shelbyville, Ind.</i>
Clark, DeWitt Scoville, Jr., A.B. (<i>Yale Univ.</i>) 1909,	<i>Salem.</i>
Cobb, Stephen Aratas, Jr., A.B. (<i>Bates Coll.</i>) 1909,	<i>Gardiner, Me.</i>
Cole, Norman Brown, A.B. 1909,	<i>Newport, R.I.</i>
Cunningham, Allan Rowe, A.B. 1909,	<i>Gloucester.</i>
Curtis, Charles Samuel, A.B. (<i>Clark Univ.</i>) 1909,	<i>Spencer.</i>
Cutler, Elliott Carr, A.B. 1909,	<i>Brookline.</i>
Denny, George Parkman, A.B. 1909,	<i>Chestnut Hill.</i>
*Dolan, William Francis, A.B. 1910,	<i>Somerville.</i>
Faulkner, James Francis, A.B. (<i>Bates Coll.</i>) 1908,	<i>Gardiner, Me.</i>
Favill, John, A.B. (<i>Yale Univ.</i>) 1909,	<i>Chicago, Ill.</i>
*Ferguson, Luther Mitchell, A.B. 1910,	<i>Pekin, China.</i>
Frost, Harold Maurice, A.B. (<i>Brown Univ.</i>) 1909,	<i>Tiverton, R.I.</i>
Gilchrist, John Milton, S.B. (<i>Cornell Coll.</i>) 1909,	<i>Waukon, Ia.</i>
Goodwin, Harold Merle, A.B. (<i>Bates Coll.</i>) 1908,	<i>Lincoln, Me.</i>
Goodwin, Ralph Augustus, A.B. (<i>Bates Coll.</i>) 1908,	<i>Lincoln, Me.</i>
Greene, Jeremiah Augustine, A.B. 1909,	<i>Cambridge.</i>
Grinnell, Francis Browne, A.B. 1909,	<i>Brookline.</i>
†Hill, Lewis Webb, A.B. 1910 (1909),	<i>Jamaica Plain.</i>

† Admitted in 1908 with work for degree completed.

* Admitted in 1909 with work for degree completed.

† A.B. awarded 1909.

Jacobs, Irving William, A.B. 1909,	<i>Boston.</i>
Kaiser, Albert David, s.B. (<i>Univ. of Rochester</i>) 1909,	<i>Rochester, N. Y.</i>
Kilgore, Alson Raphael, s.B. (<i>Univ. of California</i>) 1909,	<i>Fruitvale, Cal.</i>
Krout, Boyd Merrill, PH.B. (<i>Ohio Univ.</i>) 1909,	<i>Dresden, O.</i>
Krusen, Francis Twining, A.B. (<i>Ursinus Coll.</i>) 1909,	<i>Norristown, Pa.</i>
Lavelle, Thomas Eugene, A.B. (<i>Georgetown Univ.</i>) 1909,	<i>Butte, Mont.</i>
* Lennox, William Gordon, A.B. (<i>Colorado Coll.</i>) 1909,	<i>Colorado Springs, Colo.</i>
Leonard, Edward DeWitt, A.B. (<i>Amherst Coll.</i>) 1909,	<i>Brattleboro, Vt.</i>
Lieb, Clarence William, A.B. (<i>Colorado Coll.</i>) 1908, A.M. (<i>ibid.</i>) 1909,	<i>Manzanola, Colo.</i>
Liu, Jui Heng, s.B. 1909,	<i>Tientsin, China.</i>
MacKnight, William Frank, A.B. (<i>Holy Cross Coll.</i>) 1908,	<i>Fall River.</i>
*Morrison, William Reid, A.B. 1910,	<i>E. Boston.</i>
†Neves, Charles Serpa, A.B. 1911 (1910),	<i>Providence, R.I.</i>
†Nigro, Michele, A.B. 1911 (1910),	<i>Revere.</i>
Papas, Prodromos Nicholas, A.B. (<i>Anatolia Coll.</i>) 1907,	<i>Boston.</i>
Pierson, Philip Hale, A.B. (<i>Yale Univ.</i>) 1908,	<i>Wellesley Hills.</i>
Ruggles, Howard Edwin, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1907,	<i>Ross, Cal.</i>
Rupp, Roger Ralph, s.B. (<i>Muhlenburg Coll.</i>) 1909,	<i>Lehighnton, Pa.</i>
Shain, Abraham Isidor, A.B. 1909,	<i>Roxbury.</i>
*Shapira, Albert Abraham, s.B. 1910,	<i>Boston.</i>
Sheehan, Edward Bernard, A.B. (<i>Boston Coll.</i>) 1909,	<i>Roxbury.</i>
Strong, Seth Lake, A.B. (<i>Oberlin Coll.</i>) 1909,	<i>Marshfield Hills.</i>
Ten Broeck, Carlon, A.B. (<i>Univ. of Illinois</i>) 1908,	<i>Parsons, Kan.</i>
Terrall, John Jay, s.B. (<i>Cornell Coll.</i>) 1907,	<i>Hudson, Ia.</i>
Van Meter, Abram Lee, A.B. (<i>Univ. of Kansas</i>) 1909,	<i>Parsons, Kan.</i>
Walker, Melvin Harvey, Jr., A.B. (<i>Yale Univ.</i>) 1909,	<i>Westboro.</i>
Warren, Charles Fletcher, PH.B. (<i>Brown Univ.</i>) 1909,	<i>Auburn, R.I.</i>
Webber, Wolfert Gerson, A.B. 1909,	<i>Boston.</i>

* Admitted in 1909 with work for the degree completed.

† Admitted in 1909 as Seniors on leave of absence.

Wentworth, Edward Tubbs, A.B. 1909,	<i>Somerville.</i>
Wentworth, John Alexander, A.B. (<i>Bowdoin Coll.</i>) 1909,	<i>Portland, Me.</i>
Wickham, Thomas William, A.B. (<i>Holy Cross Coll.</i>) 1909,	<i>South Lee.</i>

SECOND CLASS

Abbott, John Woodward, A.B. (<i>Bates Coll.</i>) 1905,	<i>Lewiston, Me.</i>
Albee, Kenneth Field, PH.B. (<i>Brown Univ.</i>) 1910,	<i>Wollaston.</i>
Alton, Benjamin Harrison, S.B. (<i>So. Dakota State Coll.</i>) 1908, S.M. (<i>ibid.</i>) 1910,	<i>Brookings, So. Dak.</i>
Andrews, Sumner Cheever, A.B. 1910,	<i>Gloucester.</i>
*Aub, Joseph Charles, A.B. 1911,	<i>Cincinnati, O.</i>
Bachman, George Warren, A.B. 1908,	<i>Wilkes-Barre, Pa.</i>
Beard, Archibald Hildreth, A.B. (<i>Kansas Univ.</i>) 1910,	<i>La Junta, Colo.</i>
Bill, José Penteadó, A.B. (<i>Dickinson Coll.</i>) 1907,	<i>Harrisburg, Pa.</i>
Binger, Carl Alfred Lanning, A.B. 1910,	<i>New York, N. Y.</i>
Brett, Apley Leonel, A.B. (<i>Brown Univ.</i>) 1910,	<i>So. Braintree.</i>
Burpee, Benjamin Prescott, A.B. (<i>Dartmouth Coll.</i>) 1909,	<i>Manchester, N. H.</i>
†Caro, Heiman, A.B. 1911 (1910),	<i>Chelsea.</i>
Cheever, Austin Walter, A.B. 1910,	<i>Mattapan.</i>
Cobb, Stanley, A.B. 1910,	<i>Milton.</i>
Cohen, Joseph Powitzer, A.B. 1909,	<i>Newburgh, N. Y.</i>
Cragin, Horace Stuart, S.B. (<i>Amherst Coll.</i>) 1910,	<i>Brooklyn, N. Y.</i>
Donovan, Jeremiah John, A.B. (<i>Boston Coll.</i>) 1900,	<i>Randolph.</i>
Fay, William James, A.B. (<i>Clark Univ.</i>) 1910,	<i>Worcester.</i>
Fernández, Miguel Joaquin, A.B. (<i>Colegio Pinillos, Colombia, S.A.</i>) 1907,	<i>Mompox, Colombia, S.A.</i>
Fiske, Cyrus Hartwell, A.B. (<i>Univ. of Minnesota</i>) 1910,	<i>St. Paul, Minn.</i>
Fornell, Carl Hernfrid, A.B. 1910,	<i>Quincy.</i>
Foster, Thomas Albert, A.B. (<i>Dartmouth Coll.</i>) 1910,	<i>Portland, Me.</i>
Gosline, Harold Inman, A.B. 1909,	<i>Worcester.</i>
Gray, Horace, A.B. 1909,	<i>Boston.</i>
*Green, Hyman, A.B. 1911,	<i>Boston.</i>

* Admitted in 1910 with work for the degree completed.

† A.B. awarded 1910.

- †Hanchett, Alsoberry Kaumu, A.B. 1911 (1910),
 Hill, Frederick Thayer, s.B. (*Colby Coll.*) 1910,
 Hyde, Harold Valmore, s.B. (*Dartmouth Coll.*)
 1910,
 *Johnson, Harold Bartlett, A.B. 1911,
 Leavitt, Peirce Henry, s.B. 1910,
 Lehman, Edwin Partridge, A.B. (*Williams Coll.*)
 1910,
 *Levine, Samuel Albert, A.B. 1911,
 Long, James Harmount, A.B. (*Ohio Wesleyan Univ.*) 1904, A.M. (*ibid.*) 1907,
 Louis, Lawrence Joseph, Jr., A.B. (*Holy Cross Coll.*) 1910,
 Lunt, Lawrence Kirby, A.B. 1909,
 Lurier, Israel, A.B. (*Clark Univ.*) 1910,
 McMahon, William Edward Roche, A.B. (*Holy Cross Coll.*) 1910,
 *Marvin, Frank William, A.B. 1910 (1911),
 Millet, John Alfred Parsons, A.B. 1910,
 Moor, Henry Britt, s.B. (*Colby Coll.*) 1910,
 Morrison, Wayland Augustus, A.B. (*Leland Stanford Jr. Univ.*) 1910,
 Morrissey, John Henry, Jr., A.B. (*Brown Univ.*)
 1910,
 New, Way-sung, A.B. (*St. John's Coll.*) 1910,
 Ohler, William Richard, s.B. 1910,
 Richards, Maurice O'Neil, A.B. 1910,
 Richardson, Henry Barber, A.B. 1910,
 Rochford, Richard Augustine, A.B. (*Holy Cross Coll.*) 1910,
 Root, Raymond Richmond, s.B. (*Dartmouth Coll.*) 1905,
 Schofield, Roger William, A.B. (*Clark Univ.*)
 1910,
 Shohl, Alfred Theodore, A.B. 1910,
 Solomon, Harry Caesar, s.B. (*Univ. of California*) 1910,
 Stevens, Harold Wentworth, A.B. (*Bates Coll.*)
 1906,
 Stoddard, James Leavitt, A.B. 1910,
 Vernlund, Carl Frithiof, s.B. (*So. Dakota State Coll.*) 1909,
 Washburn, Arthur Lawrence, A.B. 1910,
- Waimea, Hawaii.*
Waterville, Me.
Lynn.
Cattaraugus, N. Y.
Cambridge.
Redlands, Cal.
Roxbury.
Cambridge.
Newport, R. I.
Colorado Springs, Colo.
Worcester.
Worcester.
Cambridge.
So. Lincoln.
Waterville, Me.
Los Angeles, Cal.
Bristol, R. I.
Shanghai, China.
Bethel, Conn.
Portsmouth, N. H.
Boston.
Newton Lower Falls.
Brookline.
Worcester.
Cincinnati, O.
Los Angeles, Cal.
Saco, Me.
Northampton.
Jungskola, Sweden.
New York, N. Y.

* Admitted in 1910 with work for the degree completed.

† A.B. awarded 1910.

Winchester, Harold Eugene, s.B. (*Dartmouth Coll.*) 1910,

Bismarck, No. Dak.

Wright, Wade Stanley, s.B. (*Univ. of Pittsburgh*) 1910,

Pittsburgh, Pa.

FIRST CLASS

Allen, Edward Bartlett, A.M. (*Brown Univ.*) 1911,

Centreville, R. I.

Allen, Walter Charles, s.B. (*Univ. of Rochester*) 1911,

Rochester, N. Y.

Amiral, Hiram Hygazon, A.B. (*Univ. of Rochester*) 1911,

Rochester, N. Y.

Appleton, Paul, PH.B. (*Brown Univ.*) 1911,

Providence, R. I.

*Astrin, Albert (*Harvard*),

Boston.

Babington, Vernon Edgar, A.B. (*Brown Univ.*) 1911,

Edgewood, R. I.

Bock, Arlie Vernon, A.B. (*Upper Iowa Univ.*) 1910,

New Albin, Ia.

Bowes, Frank Arthur, A.B. (*Holy Cross Coll.*) 1910,

Waterbury, Conn.

Bridges, Edwin Stanley, A.B. (*Univ. of New Brunswick*) 1908,

St. John, N. B.

Brown, George Percy, A.B. (*Yale Univ.*) 1911,

Barre.

Brown, Harry Henderson, Jr., A.B. (*Univ. of Texas*) 1910,

Yoakum, Tex.

†Bunker, Henry Alden, Jr. (*Harvard*),

Brooklyn, N. Y.

Burton, Caspar Henry, Jr., A.B. 1909,

Cincinnati, O.

Caldarone, Alfred Anthony, A.B. (*Holy Cross Coll.*) 1911,

Providence, R. I.

Clason, Freeman Pell, A.B. (*Bates Coll.*) 1911,

Gardiner, Me.

Cleaves, Edwin Nelson, A.B. 1911,

Medford.

Cline, Samuel, s.B. 1911,

Roxbury.

Cook, Edgar Charles, A.B. (*Lake Forest Coll.*) 1911,

Mendota, Ill.

Cook, Ward Hance, A.B. (*Univ. of Kansas*) 1909, A.M. (*ibid.*) 1910,

Kansas City, Mo.

Cummings, Edward Joseph, A.B. (*Boston Coll.*) 1911,

So. Boston.

Curtin, John Francis, A.B. (*Holy Cross Coll.*) 1911,

Lawrence.

* Admitted 1911, as Harvard College Senior, on leave of absence.

† Has completed work for the A.B. degree.

- Devine, Bernard Francis, A.B. 1911, *So. Boston.*
 †Diehl, Oliver Roland (*Harvard*), *Newport, R.I.*
 †Dolahar, John Edward (*Boston Coll.*), *Boston.*
 Donnell, Clyde Henry, A.B. (*Howard Univ.*)
 1911, *Greensboro, N.C.*
 Downing, John Godwin, A.B. (*Boston Coll.*) 1911, *So. Boston.*
 Durkin, Harry Anthony, A.B. (*Holy Cross Coll.*)
 1911, *Peoria, Ill.*
 Durrett, James Johnson, S.B. (*Univ. of Ala-*
bama) 1908, *Northport, Ala.*
 Dwinell, George Francis, A.B. (*Dartmouth*
Coll.) 1911, *Manchester, N.H.*
 Edwards, Henry William, Jr., S.B. (*Univ. of*
Rochester) 1911, *Rochester, N.Y.*
 Edwards, Sumner, A.B. (*Bowdoin Coll.*) 1910, *Bethel, Me.*
 Edwards, Walter Davis, A.B. (*Univ. of Roches-*
ter) 1911, *Rochester, N.Y.*
 Fein, Harry, A.B. 1911, *Boston.*
 Flag, Charles Monroe, S.B. 1905, *Cambridge.*
 Foley, John Arthur, A.B. 1911, *Dorchester.*
 Fowle, Hubert William, A.B. (*Williams Coll.*)
 1910, *Auburndale.*
 Génereux, Edmond Alfred, A.B. (*Holy Cross*
Coll.) 1911, *Webster.*
 Gibson, Arthur Collis, A.B. (*Bowdoin Coll.*)
 1911, *Jamaica Plain.*
 Gillespie, Norman Wilkinson, S.B. (*Tufts Coll.*)
 1911, *Dorchester.*
 Gillette, George Henry, A.B. (*Cornell Coll.*)
 1910, *Bayport, N.Y.*
 Gillon, Charles Joseph Carroll, PH.B. (*Holy*
Cross Coll.) 1911, *Taunton.*
 Gilpatrick, Leon Southard, A.B. (*Colby Coll.*)
 1909, *Hartland, Me.*
 Giroux, Louis Alexander, A.B. (*Mt. St. Mary's*
Coll.) 1911, *Somerville.*
 †Grabfield, Gustave Philip (*Williams Coll.*), *Cincinnati, O.*
 Hankey, Daniel Clyde, A.B. (*Westminster Coll.*)
 1909, *New Wilmington, Pa.*
 †Hodgson, John Sprague, PH.B. (*Brown Univ.*)
 1912 (1911), *Esmond, R.I.*

† Has completed work for the A.B. degree.

† A.B. awarded in 1911.

- †Hudson, Carl Bibb, A.B. 1912 (1911), *Montgomery, Mo.*
 Jackson, Arthur Morison, S.B. (*Dartmouth Coll.*) 1911, *Everett.*
 Janney, James Craik, A.B. 1911, *Wynnewood, Pa.*
 Johnson, Odin James, A.B. (*Univ. of Minnesota*) 1911, *Lyle, Minn.*
 Lawler, John Charles, A.B. (*Holy Cross Coll.*) 1911, *Bellows Falls, Vt.*
 McCaffrey, Jerome Joseph, A.B. (*Holy Cross Coll.*) 1911, *Attleboro.*
 MacPherson, Donald John, S.B. (*Univ. of Rochester*) 1911, *Palmyra, N. Y.*
 McQuesten, Philip, A.B. (*Dartmouth Coll.*) 1911, *Nashua, N. H.*
 Mallory, Meredith, A.B. (*Univ. of Illinois*) 1911, *Batavia, Ill.*
 Meaker, Samuel Raynor, A.B. (*Princeton Univ.*) 1911, *Carbondale, Pa.*
 Medlar, Edgar Matthias, S.B. (*Doane Coll.*) 1908, *Crete, Neb.*
 A.M. (*Univ. of Nebraska*) 1911, *Boston.*
 Montgomery, James Blaine, A.B. (*Dartmouth Coll.*) 1911, *Tulare, Cal.*
 Montgomery, Orland Franklin, A.B. (*Leland Stanford Jr. Univ.*) 1910, *Fall River.*
 Morriss, William Sarsfield, A.B. 1911, *Boston.*
 †Munro, Donald (*Harvard*), *So. Boston.*
 Murray, George Aloysius, A.B. (*Boston Coll.*) 1909, *Revere.*
 §Niles, John Otis Garfield (*Harvard*), *Brookline.*
 †O'Donoghue, Edward John, *Boston.*
 Osgood, Herman Ashton, A.B. 1911, *Boston.*
 Osgood, Howard, 2d, A.B. 1911, *Providence, R. I.*
 Oslin, Joseph Edwin, A.B. (*Brown Univ.*) 1910, *Allston.*
 †Packard, Fabian (*Harvard*), *Denver, Colo.*
 Packard, George Byron, Jr., A.B. (*Univ. of Colorado*) 1910, *Lynn.*
 Peek, Martin William, S.B. (*Dartmouth Coll.*) 1902, *Ogden, Utah.*
 †Perkins, William Albert (*Harvard*), *Webster.*
 Plouffe, Bernard Louis, A.B. (*Holy Cross Coll.*) 1911,

† A.B. awarded 1911.

† Has completed work for the A.B. degree.

§ Admitted 1905 as Harvard College Senior, on leave of absence.

‡ Admitted by special vote of the Administrative Board prior to May 1, 1909.

- Raia, Joseph Ernest, A.B. (*Brown Univ.*) 1911, *Providence, R. I.*
 Redden, William Rufus, A.B. (*Bates Coll.*) 1906, *Hyde Park.*
 Rhea, Clarence Ward, A.B. (*Austin Coll.*) 1910, *Forney, Tex.*
 Richardson, Ira Walter, A.B. (*Colby Coll.*) 1910, *Kennebunk. Me.*
 Saad, Abdelmalik, A.B. (*Assiout Coll.*) 1908, *Tehel Barood, Egypt.*
 Sargent, Arthur Forrest, A.B. (*Dartmouth Coll.*)
 1911, *Pittsfield, N.H.*
 †Sisonsky, Michael (*Harvard*), *E. Boston.*
 Sowles, Horace Kennedy, A.B. (*Clark Univ.*)
 1910, *Barre, Vt.*
 Spruit, Charles Booth, A.B. (*Illinois Coll.*) 1908, *Jacksonville, Ill.*
 †Stern, Neuton Samuel (*Harvard*), *Memphis, Tenn.*
 Stidger, Ivan Read, A.B. (*Allegheny Coll.*) 1911, *Buckhannon, W. Va.*
 Stookey, Byron Polk, A.B. (*Univ. of Southern*
California) 1908, A.M. (*Harvard Univ.*) 1909, *Los Angeles, Cal.*
 †Strauss, Arthur Edgar (*Harvard*), *St. Louis, Mo.*
 Sweeney, Edward Flagg, A.B. (*Holy Cross Coll.*)
 1910, *Somerville.*
 Thaxter, Langdon Thom, A.B. (*Williams Coll.*)
 1911, *Portland, Me.*
 Thomas, Harold, A.B. (*Acadia Coll.*) 1910, *Wollaston.*
 Towne, Edward Bancroft, A.B. 1906 (1907), *San Francisco, Cal.*
 Tucker, Cassell Clark, A.B. (*DePauw Univ.*)
 1911, *Greencastle, Ind.*
 Van Gorder, George Wilson, A.B. (*Williams*
Coll.) 1911, *Pittsburgh, Pa.*
 Van Stone, Leonard Mathews, A.B. (*Colorado*
Coll.) 1911, *Waco, Tex.*
 Withington, Paul, A.B. 1909, *Cambridge.*
 Woodward, Harry Whiting, A.B. (*Bowdoin Coll.*)
 1910, *Colorado Springs, Colo.*
 Wright, Louis Tompkins, A.B. (*Clark Univ.*,
Atlanta, Ga.) 1911, *Atlanta, Ga.*

SPECIAL STUDENTS TAKING REGULAR WORK

- Benet, George, *Columbia, S.C.*
 Fortner, Edgar Sidney, A.B. (*Missouri State*
Univ.) 1910, *Plano, Tex.*
 Grisier, Otto Woodson, A.B. (*Indiana Univ.*)
 1910, *Columbia City, Ind.*

† Has completed work for the A.B. degree.

Konrad, Frank Charles William, s.B. (<i>Univ. of Wisconsin</i>) 1910,	<i>Oshkosh, Wis.</i>
McCormick, Charles Owen, A.B. (<i>Indiana Univ.</i>) 1911,	<i>Lafayette, Ind.</i>
Meserve, Edwin Alonzo,	<i>Allston.</i>
O'Donnell, John Joseph, Jr.	<i>E. Boston.</i>
Robertson, Oswald Hope, s.B. (<i>Univ. of California</i>) 1910,	<i>Berkeley, Cal.</i>
Shortell, Joseph Henry,	<i>Salem.</i>
Tearnan, Clyde Hadrian, s.B. (<i>Univ. of Wisconsin</i>) 1910,	<i>Beaver Dam, Wis.</i>
Tearnan, Raymond Arthur, s.B. (<i>Univ. of Wisconsin</i>) 1910,	<i>Beaver Dam, Wis.</i>
Williamson, Alexander Hamilton, s.B. (<i>Univ. of California</i>) 1911,	<i>Pasadena, Cal.</i>

GRADUATES OF COLLEGES

Acadia College	2	Lake Forest College	1
University of Alabama	1	University of Minnesota	2
Allegheny College	1	Missouri State University	1
Amherst College	2	Mt. Allison College	1
Anatolia College (Turkey)	1	Mt. St. Mary's College	1
Assiout College (Egypt)	1	Muhlenberg College	1
Austin College	1	University of Nebraska	1
Bates College	11	University of New Brunswick	1
Boston College	6	Oberlin College	1
Boston University	1	Ohio University	1
Bowdoin College	5	Ohio Wesleyan University	1
Brown University	12	Colegio Pinillos (Colombia, S.A.)	1
University of California	5	University of Pittsburgh	1
Clark University (Mass.)	5	Princeton University	3
Clark University (Georgia)	1	Richmond College	1
Colby College	5	University of Rochester	8
Colorado College	4	South Dakota State College	3
University of Colorado	1	Santa Clara College	1
Cornell College (Iowa)	3	St. John's College (China)	1
Cornell University	1	University of Texas	1
Dartmouth College	14	Tufts College	2
De Pauw University	2	University of Southern California	1
Dickinson College	1	Ursinus College	1
Doane College	1	Washington and Jefferson College	1
Georgetown University	1	Westminster College	1
Gonzaga College	1	Williams College	6
Harvard University	91	University of Wisconsin	4
Holy Cross College	16	University of Wooster	1
Howard University	1	Yale University	5
Illinois College	1		
University of Illinois	2	Total	265
Indiana University	2	Counted more than once	3
Upper Iowa University	1	Total Number College Graduates	262
University of Kansas	3		
Leland Stanford Jr. University	5	Number of Colleges	64

COURSES FOR GRADUATES

(October 1, 1910, to June 1, 1911)

Andreola, Lucio, M.D. (<i>Univ. of Naples</i>) 1904,	Medford.
Anthony, George Chenery, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1904,	Wellesley.
Arnold, Hannah Helen,	Boston.
Askenstedt, Lillian Bryan, M.D. (<i>Southwestern Homeopathic Med. Coll.</i>) 1904,	Louisville, Ky.
Bailey, William Thornton, M.D. (<i>Tufts Med. Sch.</i>) 1909,	Boston.
Balboni, Gerado Monari, M.D. 1904,	Roxbury.
Balch, Marion Casares, A.B. (<i>Bryn Mawr Coll.</i>) 1902,	Jamaica Plain.
Balcom, Elmer Irving, M.D. (<i>Univ. of Michigan</i>) 1882,	Whitinsville.
Baldwin, Federic William, M.D. 1886,	Danvers.
Barrey, Emmett William, M.D. (<i>Coll. of Phys. and Surg., Baltimore</i>) 1897,	Whitinsville.
Belove, Benjamin, M.D. (<i>Univ. Med. Coll., Kansas City, Mo.</i>) 1904,	Kansas City, Mo.
Bennett, John Hillman, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1891,	Pawtucket, R.I.
Berry, Gordon, A.B. (<i>Amherst Coll.</i>) 1902, M.D. (<i>Univ. of Michigan</i>) 1906,	Worcester.
Bigelow, Frederick Freemont, M.D. (<i>Jefferson Med. Coll.</i>) 1883,	Island Falls, Me.
Bigelow, Frederick Nolton, M.D. (<i>Univ. of Michigan</i>) 1907,	Davisburg, Mich.
Blake, Thomas Barnard,	Palo Alto, Cal.
Blakely, David Newton, A.B. (<i>Dartmouth Coll.</i>) 1889, M.D. (<i>ibid.</i>) 1896,	Roxbury.
Blanchard, Howard Everett, M.D. (<i>Jefferson Med. Coll.</i>) 1905,	Providence, R.I.
Blessin, Otto James, M.D. (<i>Hahnemann Med. Coll., Chicago</i>) 1901,	Postville, Ia.
Bonelli, Raymond Peter, M.D. (<i>Tufts Med. Sch.</i>) 1907,	Boston.
Boswell, Charles Oliver, A.B. (<i>Hobart Coll.</i>) 1893, A.M. (<i>ibid.</i>) 1897, M.D. (<i>Univ. of Buffalo</i>) 1896,	Rochester, N.Y.
Brady, James Francis, M.D. 1901,	Boston.
Brown, Daniel Eugene, M.D. (<i>Hahnemann Med. Coll., Philadelphia</i>) 1886,	Brockton.

- Bruckshaw, Andrew Nathaniel, M.D. (*Boston Univ. Sch. of Med.*) 1907, Fairhaven.
- Bryant, John Edmund, M.D. (*Dartmouth Med. Sch.*) 1901, Haverhill.
- Burdick, Franklin Elisha, M.D. (*Syracuse Univ.*) 1895, Providence, R.I.
- Burnet, Francis Lowell, S.B. 1902, M.D. 1906, Boston.
- Bush, George Freeman, M.D. (*Atlanta Coll. of Phys. and Surg.*) 1900, Cornesville, Ga.
- Bychower, Victor, M.D. (*Strassburg Univ., Germany*) 1888, Malden.
- Byrnes, Ralph Leonidas, S.B. (*Iowa State Univ.*) 1902, M.S., M.D. (*ibid.*) 1906, Salt Lake City, Utah.
- Calkin, Barry Howes, M.D. (*McGill Univ.*) 1891, Jamaica Plain.
- Campbell, Rachel Mary Wylie, Milwaukee, Wis.
- Carbone, Giovanni, M.D. (*Univ. of Naples*) 1892, Boston.
- Clarke, Joshua Williams, M.D. (*Univ. of the South*) 1901, Attleboro.
- Coffin, Frank Herbert, PH.G. (*Mass. Coll. of Pharm.*) 1894, M.D. (*Boston Univ. Sch. of Med.*) 1900, Haverhill.
- Conro, Arthur Clifton, A.B. (*Harvard Univ.*) 1893, M.D. (*Chattanooga Med. Sch.*) 1901, Attleboro.
- Corrigan, John Patrick, M.D. (*New York Univ.*) 1883, Pawtucket, R.I.
- Crossman, Edgar Orin, M.D. (*Univ. of Vermont*) 1887, Lisbon, N.H.
- Cunningham, John Henry, Jr., M.D. 1902, Boston.
- Curry, Edmund Farnham, M.D. 1896, Fall River.
- Cutler, James Tucker, A.B. (*Williams Coll.*) 1890, Roxbury.
- M.D. (*Harvard Univ.*) 1893, Brookline.
- Dana, Harold Ward, A.B. 1900, M.D. 1905, Worcester.
- Deilahanty, William Joseph, M.D. (*Dartmouth Med. Sch.*) 1883, Allega, Nueva Ecija, P.I.
- De la Paz, Daniel, M.D. (*Coll. of Phys. and Surg., Chicago*) 1910, Toledo, O.
- Denman, Ira Oscar, M.D. (*Hahnemann Med. Coll., Chicago*) 1897, Springfield.
- Dexter, Fred Fay, M.D. 1904, Hyde Park.
- Dodge, Ralph Oscar, M.D. (*Boston Univ. Sch. of Med.*) 1910, Boston.
- Dorcey, James Edmund, M.D. 1878,

- Downing, James Arthur, M.D. (*Drake Univ., Iowa*) 1909, *Des Moines, Ia.*
- Draper, Charles Ransom, M.D. (*Univ. of Vermont*) 1888, *Medford.*
- Drew, Frederick Prescott, M.D. (*Detroit Coll. of Med.*) 1899, *E. Dedham.*
- Dudley, Hubert William, M.D. (*Jefferson Med. Coll.*) 1888, *San Rafael, Cal.*
- Dunlap, Albert Menzo, A.B. (*Univ. of Illinois*) 1906, M.D. (*Harvard Univ.*) 1910, *Savoy, Ill.*
- Emerson, Robert Leonard, A.B. 1894, M.D. 1900, *Boston.*
- Emmons, Arthur Brewster, A.B. 1898, M.D. 1902, *Boston.*
- Feeley, Charles Philip, M.D. (*Univ. of Kentucky*) 1903, *Cambridge.*
- Fenton, Alfred Archibald, M.D. (*Univ. of Vermont*) 1908, *Gloucester.*
- Finkelstein, Harry, M.D. 1904, *Boston.*
- Fisher, Irving Jewell, M.D. 1900, *W. Newton.*
- Flanders, Fred Ford, A.B. (*State Coll. of Washington*) 1902, A.M. (*ibid.*) 1905, *Seattle, Wash.*
- Ford, Algernon Sydney, A.M. 1910, *Troy, Ala.*
- Freedman, Louis Mark, A.B. 1901, M.D. 1904, *Allston.*
- Gavin, Evan Moody, M.D. (*Univ. of Alabama*) 1910, *Mobile, Ala.*
- Gifford, John Henry, M.D. 1884, *Fall River.*
- Gilbert, Walter Jere, M.D. (*Cleveland Med. Coll.*) 1898, *Calais, Me.*
- Hammond, Charles, M.D. (*Yale Univ.*) 1904, *Hanover.*
- Hartman, John Van Horn, M.D. (*Cleveland Homoeopathic Med. Coll.*) 1904, *Findlay, O.*
- Hartwell, Harry Fairbanks, A.B. 1895, M.D. 1898, *Boston.*
- Headley, Leal Aubrey, S.B. (*Carleton Coll.*) 1907, A.M. (*Harvard Univ.*) 1910, *Winnebago, Minn.*
- Henderson, Charles Russell, M.D. (*Boston Univ. Sch. of Med.*) 1889, *Reading.*
- Hess, Peter William, M.D. 1901, *Pawtucket, R.I.*
- Hills, Charles Everett, M.D. (*Dartmouth Med. Sch.*) 1901, *So. Natick.*
- Hoberman, Samuel, M.D. (*George Washington Univ.*) 1907, *Malden.*
- Holmes, George Winslow, M.D. (*Tufts Med. Sch.*) 1906, *Boston.*

- Hornbrook, Francis Wheeler, PH.B. (*De Pauw Univ.*) 1899, M.D. (*Harvard Univ.*) 1905, Brookline.
- Hubbell, Adelbert Merton, M.D. (*Boston Univ. Sch. of Med.*) 1889, Haverhill.
- Hunt, Harold Otis, M.D. (*Boston Univ. Sch. of Med.*) 1909, Newtonville.
- Hurd, Albert Gordon, A.B., A.M. (*Colby Coll.*) 1892, M.D. (*Univ. of Pennsylvania*) 1895, Millbury.
- Jennings, Curtis Herman, M.D. (*Baltimore Univ.*) 1902, Fitchburg.
- Johnston, Charles Edward, M.D. (*Dartmouth Med. Sch.*) 1897, Portsmouth, N.H.
- Joslin, Elliott Proctor, A.B. (*Yale Univ.*) 1890, PH.B. (*ibid.*) 1891, M.D. (*Harvard Univ.*) 1895, Boston.
- Keenan, Herbert John, M.D. 1894, So. Boston.
- Kilpatrick, George Alexander, M.D. (*Washington Univ.*) 1904, Wilburton, Okla.
- King, Maxwell Benedict, M.D. 1900, Dorchester.
- Lahey, Frank Howard, M.D. 1904, Boston.
- Lancaster, Sherman Russell, M.D. (*Univ. of City of New York*) 1887, Cambridge.
- Larrabee, Ralph Clinton, A.B. 1893, M.D. 1897, Boston.
- Lewis, Francis Edward, A.B. (*Amherst Coll.*) 1907, Auburndale.
- Luce, LeRoy Alson, M.D. (*Tufts Med. Sch.*) 1906, Stockbridge, Vt.
- Lytle, Claude Carl, M.D. (*Syracuse Univ. Med. Coll.*) 1900, Geneva, N.Y.
- McCormick, Robert Earl, A.B. (*Univ. of Texas*) 1904, A.M. (*Harvard Univ.*) 1910, Denton, Tex.
- McEvoy, George Albert, M.D. 1899, Dorchester.
- McKelvey, Alexander Dunbar, S.B. (*Univ. of Toronto*) 1906, M.B. (*ibid.*) 1908, Toronto, Canada.
- McKoan, John William, M.D. 1894, Worcester.
- MacMillan, Andrew Louis, Jr., A.B. (*Dartmouth Coll.*) 1905, M.D. (*Harvard Univ.*) 1909, Hanover.
- McNamara, John James, M.D. (*Tufts Med. Sch.*) 1900, Brockton.
- McPherson, George Edwin, M.D. (*Baltimore Med. Coll.*) 1904, Attleboro.
- Manahan, Herbert Wellington, M.D. 1894, Lawrence.
- Marshall, Louis Harrington, D.D.S. (*Baltimore Med. Coll.*) 1898, Newton Highlands.
- Mathews, Robert Francis, M.D. (*Univ. of Pennsylvania*) 1905, Worcester.

- Matulaitis, Francis, M.D. (*Baltimore Med. Coll.*)
1907, *So. Boston.*
- Merritt, Louis Arthur, M.D. (*Med. Sch. of Maine*)
1893, *Bridgewater.*
- Metcalf, Harold, A.B. (*Brown Univ.*) 1884, M.D.
(*Harvard Univ.*) 1887, *Wickford, R.I.*
- Meyer, Edward James, M.D. (*Dalhousie Univ.*)
1893, *Somerville.*
- Morse, Mary Elizabeth, A.B. (*Goucher Coll.,*
Baltimore) 1899, M.D. (*Johns Hopkins Univ.*)
1903, *Boston.*
- Niles, John Otis Garfield, *Revere.*
- Norton, George Edward, PH.G. (*Mass. Coll. of*
Pharm.) 1887, M.D. (*Univ. of Vermont*) 1899, *Cambridge.*
- Noyes, Margaret Louise, M.D. (*Woman's Med.*
Coll. of Pennsylvania) 1903, *Boston.*
- Nute, Marion, M.D. (*Univ. of Michigan*) 1897, *Dorchester.*
- O'Leary, Joseph Augustus, M.D. (*Boston Univ.*
Sch. of Med.) 1887, *Wakefield.*
- O'Meara, John George, M.D. (*Univ. of Pennsyl-*
vania) 1899, *Providence, R.I.*
- Parker, John Clement, A.B. (*Bowdoin Coll.*) 1886,
A.M. (*ibid.*) 1889, M.D. (*ibid.*) 1891, *Providence, R.I.*
- Patterson, Robert Urie, M.D., C.M. (*McGill Univ.*)
1898, *Winthrop.*
- Pettibone, Chauncey J. Vallette, S.B. (*Univ. of*
Chicago) 1907, *Evanston, Ill.*
- Pierce, Franklin Argile, S.B. (*Ferris Inst.*) 1900,
M.D. (*Tulane Univ.*) 1904, *Dallas, Texas.*
- Pike, Forrest Fay, M.D. 1898, *Melrose.*
- Place, Philip Wilfred, M.D. (*Tufts Med. Sch.*)
1909, *Francestown, N.H.*
- Pope, Saxton Temple, M.D. (*Univ. of California*)
1899, *Watsonville, Cal.*
- Porter, Lewis Beers, M.D. (*Yale Univ.*) 1898, *Providence, R.I.*
- Provandie, Paul Hector, M.D. 1896, *Melrose.*
- Redmond, James William, M.D. 1892, *So. Boston.*
- Remington, John Alfred, M.D. (*Bellevue Hosp.*
Med. Coll.) 1891, *Central Falls, R.I.*
- Risley, Edward Hammond, A.B. (*Yale Univ.*)
1902, M.D. (*Harvard Univ.*) 1906, *Boston.*
- Robertson, Alexander Roth, M.D. (*Tulane Med.*
Coll.) 1895, *Pass Christian, Miss.*

- Rockwell, John Arnold, Jr., S.B. (*Mass. Inst. of Technology*) 1896, M.D. (*Boston Univ. Sch. of Med.*) 1899, Cambridge.
- Roddy, Martin Bernard, M.D. (*Baltimore Med. Coll.*) 1909, Fitchburg.
- Rucker, Samuel Thomas, M.D. (*Univ. of Nashville*) 1898, Memphis, Tenn.
- Sawaya, George Elias, M.D. (*Univ. of Maryland*) 1910, Boston.
- Schirmer, Joseph Walter, M.D. (*Boston Univ. Sch. of Med.*) 1908, Needham.
- Stapleigh, Elizabeth Adelaide, Brookline.
- Shaw, Henry Alden, M.D. 1890, Washington, D.C.
- Simpson, James Kidd, M.D. (*Coll. of Phys. and Surg., Minneapolis*) 1885, Ashton, Ontario.
- Sluss, John William, A.M. (*De Pauw Univ.*) 1894, Indianapolis, Ind.
- M.D. (*Indiana Univ. Sch. of Med.*) 1893,
- Spaulding, Edith Rogers, M.D. (*Tufts Med. Sch.*) 1909, Stony Brook.
- Spooner, Lesley Hinckley, A.B. 1903, M.D. 1907, Boston.
- Stephens, Frederick Newton, M.B. (*Toronto Univ.*) 1904, Somerville.
- Sterling, Eunice Blanche, M.D. (*Woman's Med. Coll. of Baltimore*) 1905, Baltimore, Md.
- Strong, James Henry, M.D. 1892, E. Boston.
- Sweek, William Oscar, St. Mary's, Mo.
- Taylor, Harry Baylor, M.D. (*Univ. of Virginia*) 1900, Norfolk, Va.
- Taylor, Roy Arnold, M.D. (*Tufts Med. Sch.*) 1906, Waltham.
- Thompson, Edwin Gilpin, D.D.S. (*Philadelphia Dental Coll.*) 1890, M.D. (*Medico Chirurgical Coll., Philadelphia*) 1893, Providence, R.I.
- Tilton, Earle Edward, M.D. (*Tufts Med. Sch.*) 1908, Malden.
- Tomkies, James Scott, A.B. (*Tulane Univ.*) 1903, M.D. (*Harvard Univ.*) 1908, Dallas, Texas.
- Trask, John Wilson, M.D. (*Univ. of Vermont*) 1904, Lynn.
- Traynor, Joseph Paul, M.D. (*Bowdoin Med. Sch.*) 1901, Biddeford, Me.
- Turner, Abby Howe, A.B. (*Mt. Holyoke Coll.*) 1896, So. Hadley.
- Vincent, Beth, A.B. 1898, M.D. 1902, Boston.

- Walker, Isaac Chandler, A.B. (*Johns Hopkins Univ.*) 1905, M.D. (*ibid.*) 1909, Boston.
- Ward, John Thomas, M.D. 1900, Providence, R.I.
- Watson, William Purkis, M.D. (*Bellevue Hosp. Med. Coll.*) 1879, Pawtucket, R.I.
- Welch, Stephen Albro, M.D. 1884, Providence, R.I.
- Wheaton, James Lucas, Jr., PH.B. (*Brown Univ.*) 1891, M.D. (*Harvard Univ.*) 1895, Pawtucket, R.I.
- Whiteside, Lindsay Cochrane, M.D. (*Jefferson Med. Coll.*) 1907, Philadelphia, Pa.
- Whitman, Ross C., A.B. (*Univ. of Michigan*) 1894, M.D. (*ibid.*) 1899, Boulder, Colo.
- Wise, Henry Moses, M.D. (*Univ. of Pennsylvania*) 1909, Philadelphia, Pa.
- Withee, Frederick Elmarien, M.D. (*Coll. of Phys. and Surg., Baltimore*) 1892, Newton Highlands.

THE SUMMER SCHOOL OF MEDICINE

(June 1 to October 1, 1911)

Alcuzar, Isaac, A.B. (<i>Univ. of Wisconsin</i>) 1908,	<i>Boston.</i>
Allison, Luke Pryor, M.D. (<i>Beaumont Hosp. Med. Coll.</i>) 1893,	<i>Brownwood, Texas.</i>
Anderson, Victor Vance, A.B. (<i>Union Coll.</i>) 1899, M.D. (<i>Hosp. Coll. of Med., Louisville, Ky.</i>) 1903,	<i>Lynchburg, Va.</i>
Andrews, Robert Marion, M.D. (<i>Univ. of Buffalo</i>) 1898,	<i>Bergen, N. Y.</i>
Angell, Worcester Randolph,	<i>Boston.</i>
Baker, Joseph Parker, M.D. (<i>Starling Med. Coll.</i>) 1890,	<i>Findlay, O.</i>
Barnes, Robert Lenox, M.D. (<i>Ohio Med. Univ.</i>) 1909,	<i>Columbus, O.</i>
Barnes, William Samuel, PH.G. (<i>Yale Univ.</i>) 1895, M.D. (<i>ibid.</i>) 1897,	<i>New Haven, Conn.</i>
Bauer, Louis Hopewell, A.B. 1909,	<i>Jamaica Plain.</i>
Bellinger, Grover Cleveland, M.D. (<i>Willamette Med. Coll.</i>) 1909,	<i>Salem, Ore.</i>
Benedict, Mary Kendrick, A.B. (<i>Vassar Coll.</i>) 1897,	<i>Sweet Briar, Va.</i>
Bernstein, Harry Saul, A.B. 1904, M.D. 1908,	<i>Albany, N. Y.</i>
Billings, Frederick Horatio, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1896, A.M. (<i>Harvard Univ.</i>) 1899, PH.D. (<i>Univ. of Munich</i>) 1901,	<i>Lawrence, Kans.</i>
Blake, Francis Gilman, A.B. (<i>Dartmouth Coll.</i>) 1908,	<i>Brookline.</i>
Blake, Thomas Barnard,	<i>Palo Alto, Cal.</i>
Blanchett, Louis Alphonsus,	<i>St. Hyacinthe, Can.</i>
Boehm, Julius Benjamin, S.B. (<i>St. Louis Univ.</i>) 1910,	<i>St. Louis, Mo.</i>
Bond, William Lincoln, M.B. (<i>Univ. of Toronto</i>) 1890,	<i>Ontario, Can.</i>
Bowen, Frederick John, M.D. (<i>Coll. of Phys. and Surg., Chicago</i>) 1890,	<i>Mt. Morris, N. Y.</i>
Bowker, Charles Harvey, M.D. (<i>National Univ. of Washington, D. C.</i>) 1900, A.B. (<i>George Washington Univ.</i>) 1909,	<i>Washington, D. C.</i>
Broad, George Birney, M.D. (<i>Syracuse Univ. Coll. of Med.</i>) 1896,	<i>Syracuse, N. Y.</i>

- Brown, Barton Bartholomew, M.D. (*Tennessee Med. Coll.*) 1900, *La Follette, Tenn.*
- Brown, James Howard, S.B. (*Illinois Coll.*) 1906, M.S. (*Univ. of Illinois*) 1909, *Allston.*
- Brownson, William Clarence, M.D. (*Univ. of New York*) 1878, *Asheville, N.C.*
- Bryan, Oval Nelson, M.D. (*Vanderbilt Univ.*) 1907, *Nashville, Tenn.*
- Bryant, Owen, A.B. 1904, *Cohasset.*
- Buffum, William Potter, Jr., A.B. (*Brown Univ.*) 1909, *Newport, R. I.*
- Burnett, Henry Winans, M.D. (*Long Island Coll. Hosp.*) 1897, *Providence, R. I.*
- Burton, Caspar Henry, Jr., A.B. 1909, *Boston.*
- Burwell, Edmund Strudwick, Ph.B. (*Univ. of No. Carolina*) 1906, *Charlotte, N.C.*
- Buttles, Ernest Hiram, A.B. (*Univ. of Vermont*) 1901, M.D. (*ibid.*) 1908, *Burlington, Vt.*
- Byrnes, Ralph Leonidas, S.B. (*State Univ. of Iowa*) 1902, M.S., M.D. (*ibid.*) 1906, *Iowa City, Ia.*
- Callander, Cyrus Newton, M.D., C.M. (*Trinity Med. Coll., Ont.*) 1897, *Fargo, No. Dak.*
- Canavan, Myrteele Moore, M.D. (*Woman's Med. Coll. of Pennsylvania*) 1905, *St. Johns, Mich.*
- Carroll, Harry Ralph, A.B. (*St. Xavier Coll.*) 1908, A.M. (*ibid.*) 1911, *Cincinnati, O.*
- Carroll, Walter Richard, A.B. (*Boston Univ.*) 1907, *Brookline.*
- Chadbourn, Alfred Granville, Ph.B. (*Hamline Univ.*) 1897, M.D. (*Medico Chirurgical Coll., Philadelphia*) 1900, *Redwood Falls, Minn.*
- Chaffer, Orel Nathan, M.D. (*Coll. of Phys. and Surg., Baltimore*) 1906, *Erie, Pa.*
- Charles, Emily Clark, M.D. (*New York Med. Coll. and Hosp. for Women*) 1894, *New York, N. Y.*
- Cherrington, John Summerfield, M.D. (*Ohio Med. Coll.*) 1897, *Logan, O.*
- Chesley, Alfred Ervan, A.B. (*Dartmouth Coll.*) 1900, M.D. (*Bellevue Hosp. Med. Coll.*) 1904, *Lawrence.*
- Clark, DeWitt Scoville, Jr., A.B. (*Yale Univ.*) 1909, *Salem.*
- Clark, Frank Robinson, A.B. (*Wesleyan Univ.*) 1900, *Woburn.*
- Clarke, Helen Dorothy, A.B. (*Vassar Coll.*) 1909, *Boston.*
- Cobb, Stanley, A.B. 1910, *Milton.*
- Cole, Norman Brown, A.B. 1909, *Newport, R. I.*
- Collins, George Leman, A.B. 1896, M.D. 1900, *Washington, D. C.*

- Conover, Charles Clinton, S.B. (*Missouri Univ.*) 1901, Kansas City, Mo.
- Conrad, David Andrew, M.D. (*Univ. of California*) 1893, Santa Barbara, Cal.
- Cook, Ward Hance, A.B. (*Univ. of Kansas*) 1909, A.M. (*ibid.*) 1910, Kansas City, Mo.
- Coonley, Raymond Benjamin, M.D. (*New York Med. Coll.*) 1911, New York, N. Y.
- Cooper, St. Cloud, M.D. (*Missouri Med. Coll.*) 1882, Fort Smith, Ark.
- Copeland, Gordon Grote, A.B. (*Univ. of Toronto*) 1909, M.B. (*ibid.*) 1911, Toronto, Can.
- Croacher, Anna Wood, M.D. (*Univ. of Michigan*) 1891, New Bedford.
- Cullings, Jesse James, M.D. (*Memphis Hosp. Med. Coll.*) 1909, Memphis, Tenn.
- Cummings, Dana Frank, M.D. (*Tufts Med. Sch.*) 1910, Natick.
- Cunningham, Modie Ezra, M.D. (*Birmingham Med. Coll.*) 1900, Birmingham, Ala.
- Cunningham, Russell McWhorton, M.D. (*Bellevue Hosp. Med. Coll.*) 1879, LL.D. (*Univ. of Alabama*) 1911, Birmingham, Ala.
- Curtis, Charles Samuel, A.B. (*Clark Coll.*) 1909, Spencer.
- Custis, James Bayard Gregg, Jr., A.B. (*Johns Hopkins Univ.*) 1903, M.D. (*N. Y. Homeopathic Med. Coll. & Hosp.*) 1907, Washington, D.C.
- Cutler, Elliott Carr, A.B. 1909, Brookline.
- Daly, Timothy Joseph, M.D. 1897, Lawrence.
- Dana, Harold Ward, A.B. 1900, M.D. 1905, Brookline.
- Davis, Daniel, A.B. 1909, Jamestown, R. I.
- Davis, Isaac, A.B. 1910, Pittsburgh, Pa.
- Davis, Minot Flagg, M.D. (*Univ. of the South*) 1901, PH.G. (*ibid.*) 1902, Boston.
- Dawson, Dudley Theodore, M.D. (*Starling Ohio Med. Coll.*) 1910, Columbus, O.
- DeGroat, Herman Knowlton, A.B. (*Univ. of Rochester*) 1892, M.D. (*Univ. of Buffalo*) 1897, Buffalo, N. Y.
- Denny, George Parkman, A.B. 1909, Chestnut Hill.
- Dezell, Frederick Burr, M.D. (*Albany Med. Coll.*) 1896, Lynn.
- Dickson, George Bennet, M.D. (*Tulane Univ.*) 1911, Shreveport, La.
- Diepenbrock, Anthony Bernard, A.B. (*Santa Clara Coll.*) 1908, Sacramento, Cal.

- Dodd, Walter LeRoy,
 Dodge, George Francis, M.D. (*Baltimore Med. Coll.*) 1906,
 Doherty, Francis Joseph,
 Donald, Thomas Claude, M.D. (*Univ. of Alabama*) 1897,
 Donaldson, John Calvert, PH.B. (*Sheffield Scientific Sch.*) 1910,
 Donovan, John Tom,
 Doolittle, William Frederick, M.D. (*Western Reserve Med. Sch.*) 1898,
 Downer, Earl Bishop, M.D. (*Ohio Med. Coll.*) 1907,
 Duffy, William Core, A.B. (*Wake Forest Coll.*) 1910,
 Durrett, James Johnson, S.B. (*Univ. of Alabama*) 1908, M.S. (*ibid.*) 1909, PH.G. (*ibid.*) 1910,
 Ehrich, William Seigman, M.D. (*Med. Coll. of the State of South Carolina*) 1903,
 Elliott, Andrew Henry, A.B. (*Westminster Coll.*) 1892, M.D. (*Jefferson Med. Coll.*) 1896,
 Evans, Thomas Jefferson, M.D. (*Hahnemann Hosp. Coll. of San Francisco*) 1900,
 Farmer, Winfield Scott, M.D. (*Vanderbilt Univ. Med. Dept.*) 1890,
 Favill, John, A.B. (*Yale Univ.*) 1909,
 Fayerweather, Roades, A.B. (*Harvard Univ.*) 1899, M.D. (*Johns Hopkins Univ.*) 1903,
 Ferguson, Luther Mitchell, A.B. 1910,
 Fernandez, Miguel Joaquin, A.B. (*Colegio Pinillos, Colombia, S. A.*) 1907, *Mompox, Colombia, S. A.*
 Ferneau, Frank Day, PH.G. (*Northern Indiana Normal Sch.*) 1892, M.D. (*Medical Coll. of Ohio*) 1896,
 Finkelstein, Harry, M.D. 1904,
 Fitz, Reginald, A.B. 1906, M.D. 1909,
 Foltz, James Arthur, M.D. (*Tulane Univ.*) 1901,
 Freeman, George Franklin, A.B. (*Bowdoin Coll.*) 1890, M.D. (*Harvard Univ.*) 1896,
 French, Margaret,
 Funkhouser, William Littell, M.D. (*Univ. of Maryland*) 1904,
 Furlong, Francis Mohun, M.D. (*Univ. of Georgetown*) 1895,
 Gaines, Marion Toulmin, M.D. (*Univ. of Alabama*) 1890,
 Worcester.
 Wilmington.
 Medford.
 Bessemer, Ala.
 Philadelphia, Pa.
 Buffalo, N. Y.
 Cleveland, O.
 Columbus, O.
 Wilson, N. C.
 Northport, Ala.
 Evansville, Ind.
 Avalon, Pa.
 Loma Linda, Cal.
 Cookeville, Tenn.
 Chicago, Ill.
 Baltimore, Md.
 Newton.
 Toledo, O.
 Boston.
 Manchester.
 Fort Smith, Ark.
 Washington, D. C.
 Peabody.
 Rome, Ga.
 Chelsea.
 Mobile, Ala.

- Gardner, E. Roy, M.D. (*Univ. of Pennsylvania*) 1895,
Pittsburgh, Pa.
- Gavin, Evan Moody, M.D. (*Univ. of Alabama*) 1910,
Mobile, Ala.
- Getman, William Tweedy, M.D. (*Univ. of Buffalo*) 1901,
Buffalo, N. Y.
- Gilbert, James Francis, M.D. (*Baltimore Med. Coll.*) 1898,
Woonsocket, R. I.
- Gillette, Edwin Johnson, A.B. (*Williams Coll.*) 1888, M.D. (*Univ. of Pennsylvania*) 1891,
Phoenix, Ariz.
- Goins, George Washington, M.D. (*Marion Sims Coll. of Med.*) 1898,
Breckenridge, Mo.
- Goodenough, Edward Winchester, A.B. (*Yale Univ.*) 1887, M.D. (*ibid.*) 1893,
Waterbury, Conn.
- Goodhue, Ned Dunham, M.D. (*Ohio Med. Coll.*) 1903,
Dayton, O.
- Gramley, William,
Franklin, Pa.
- Green, Burt Francis, A.B. (*Hillsdale Coll.*) 1894,
Hillsdale, Mich.
- Green, John, Jr., A.B. (*Harvard Univ.*) 1894, M.D. (*Wash. Univ. Med. Sch.*) 1898,
St. Louis, Mo.
- Greene, Joseph Berry, A.B. (*Univ. of Alabama*) 1890, A.M. (*ibid.*) 1891, M.D. (*Univ. of Virginia*) 1893,
Asheville, N. C.
- Grice, Joseph, M.D. (*Univ. of Virginia*) 1893,
Portsmouth, Va.
- Grinnell, Francis Browne, A.B. 1909,
New Bedford.
- Grover, Arthur Leon, PH.B. (*Brown Univ.*) 1898, M.D. (*Harvard Univ.*) 1903,
Hyde Park.
- Hadley, Charles William,
Columbus, O.
- Hamblet, Mary Lucia, A.B. (*Wellesley Coll.*) 1898, M.D. (*Cornell Univ. Med. Coll.*) 1909,
Salem.
- Hammond, Charles, M.D. (*Yale Univ.*) 1904,
Hanover.
- Harrington, George Leonard, M.D. (*Univ. of Kansas*) 1908,
Kansas City, Mo.
- Harris, Arthur Buckner, M.D. (*Univ. of Virginia*) 1902,
Birmingham, Ala.
- Hawley, Gertrude Helen, A.B. (*Vassar Coll.*) 1911,
Ben Avon, Pa.
- Hayman, Stuart Roberts,
Brookline.
- Heacock, Joseph Davis, S.B. (*Howard Coll.*) 1890, M.D. (*Tulane Univ.*) 1892,
Birmingham, Ala.
- Henderson, Robert James, M.D. (*Jefferson Med. Coll.*) 1892,
Worcester.
- Henry, Edwin Clyde, M.D. (*Medico Chirurgical Coll., Philadelphia*) 1896,
Omaha, Neb.
- Henze, Carl William, M.D. (*Yale Univ.*) 1900,
New Haven, Conn.
- Hess, Henry Lewis, M.D. (*Univ. Med. Coll. of Kansas City*) 1909,
Kansas City, Mo.

- Hill, Lewis Webb, A.B. 1910,
 Hills, Laura Heath, M.D. (*Woman's Med. Coll. of Pennsylvania*) 1896,
 Hoberman, Samuel, M.D. (*George Washington Univ.*) 1907,
 Holbrook, Charles Albert, A.B. 1900, M.D. 1908,
 Hosley, Walter Alexis, A.B. 1900, M.D. 1904,
 Hull, Henry Clay, A.B. (*Iowa State Univ.*) 1894, M.D. (*Northwestern Univ. Med. Sch.*) 1898,
 Hummons, Henry Lytle, M.D. (*Med. Coll. of Indiana*) 1902,
 Hunt, Harold Otis, M.D. (*Boston Univ. Sch. of Med.*) 1909,
 Hunter, George Graham, S.B. (*Univ. of California*) 1901, M.D. (*ibid.*) 1906,
 Hutcheson, James Morrison, A.B. (*Washington and Lee Univ.*) 1902, M.D. (*Med. Coll. of Virginia*) 1909,
 Irwin, Archer, M.D., C.M. (*Dalhousie Univ.*) 1892,
 Ivey, Robert Robbins, M.D. (*Univ. of Alabama*) 1909,
 Jackson, Fred Kinney, A.B. (*Univ. of Vermont*) 1897, M.D. (*ibid.*) 1899,
 Jacobus, Arthur Middleton, M.D. (*Bellevue Hosp. Med. Coll.*) 1876,
 Jepson, Mary Bunker, M.D. (*Hering Med. Coll.*) 1895,
 Johnson, Charles Eugene, A.B. (*Univ. of Minnesota*) 1906, A.M. (*ibid.*) 1907,
 Jones, Edward Barton, M.S. (*George Washington Univ.*) 1902,
 Jones, Louise Tayler, A.B. (*Wellesley Coll.*) 1896, M.S. (*George Washington Univ.*) 1898, M.D. (*Johns Hopkins Univ.*) 1903,
 Joslyn, Leslie Burritt, M.D. (*Northwestern Univ. Med. Sch.*) 1910,
 Katszinis, George, M.D. (*Univ. of Athens*) 1900,
 Kelly, John Clarence, M.D. (*Coll. of Phys. and Surg., Baltimore*) 1882,
 Kendall, Arthur Isaac, S.B. (*Mass. Inst. Technology*) 1900, PH.D. (*Johns Hopkins Univ.*) 1904, DR.P.H. (*Harvard Univ.*) 1911,
 Killeen, Mary, M.D. (*Univ. of Michigan*) 1904,
 Killough, John Newton, M.D. (*Kentucky Sch. of Med.*) 1887,
Jamaica Plain.
Willimantic, Conn.
Malden.
Haverhill.
Springfield.
Washington, Ia.
Indianapolis, Ind.
Newtonville.
Los Angeles, Cal.
Richmond, Va.
Hakalan, Hawaii.
Mt. Vernon, Ala.
Burlington, Vt.
New York, N. Y.
Olean, N. Y.
Minneapolis, Minn.
Washington, D. C.
Washington, D. C.
Marengo, Ill.
Boston.
Mitchell, Ind.
Boston.
Dubuque, Ia.
So. Birmingham, Ala.

- King, Harry Clifton, M.D. (*Hahnemann Med. Coll. & Hosp., Philadelphia*) 1907, Washington, D. C.
- Kingsbury, Francis Bullard, A.B. 1909, So. Framingham.
- Kirkpatrick, George Holland, M.D. (*Univ. of Vermont*) 1906, Lynn.
- Krusen, Francis Twining, A.B. (*Ursinus Coll.*) 1909, Morristown, Pa.
- Labensky, Alfred, New London, Conn.
- Lane, Clarence Guy, A.B. 1905, M.D. 1908, Woburn.
- Lanoie, Joseph Eugene, M.D. (*Univ. of Bishop Coll.*) 1893, Montreal, Can.
- Lauck, John Wilson, M.D. (*Kansas Med. Coll.*) 1898, Olsburg, Kans.
- Leavitt, Robert Greenleaf, A.B. 1889, A.M. 1898, Trenton, N. J.
- LeBeuf, Louis George, M.D. (*Tulane Univ.*) 1887, New Orleans, La.
- Lennox, William Gordon, A.B. (*Colorado Coll.*) 1909, Colorado Springs, Colo.
- Leone, Charles, M.D. (*Univ. of Buffalo*) 1911, Le Ray, N. Y.
- Levyn, Lester, A.B. (*Rock Hill Coll.*) M.D. (*Univ. of Maryland*) 1909, Buffalo, N. Y.
- Lincoln, Merrick, A.B. 1896, M.D. 1900, Worcester.
- Linde, Joseph Irving, M.D. (*Yale Univ.*) 1908, New Haven, Conn.
- Lineback, Paul Eugene, A.B. (*Drake Univ.*) 1907, M.D. (*ibid.*) 1911, Des Moines, Ia.
- Lupien, Henry John, M.D. (*Tufts Med. Sch.*) 1908, Brockton.
- Lyman, Henry, A.B. 1901, Boston.
- Lyon, Fred Bayard, PH.G. (*Illinois Univ.*) 1900, M.D. (*Northwestern Univ. Med. Sch.*) 1903, Wichita, Kans.
- McClure, Charles Walter, A.B. (*Ohio State Univ.*) 1906, M.D. (*Starling Ohio Med. Coll.*) 1910, Columbus, O.
- McCoy, Ira Dean, Emlenton, Pa.
- McDonald, Archibald Leete, A.B. (*Univ. of No. Dakota*) 1901, M.D. (*Johns Hopkins Univ.*) 1905, Duluth, Minn.
- McKamy, Anna Isabelle, PH.B. (*Lincoln Univ.*) 1888, M.D. (*Northwestern Univ., Chicago.*) 1897, New Albany, Ind.
- McKichan, Matthew Donald, A.B. (*Toronto Univ.*) 1898, M.B. (*ibid.*) 1901, Toronto, Can.
- McNeish, Alexander, M.D. (*Tufts Med. Sch.*) 1897, Leicester.
- Mackay, Edward Hart, M.D. 1898, Clinton.
- Mackenzie, William Yancey, A.B. (*Hiwassee Coll.*) 1887, M.D. (*New York Homeopathic Coll.*) 1911, Weatherford, Texas.

- Mackerras, Robert Hamilton, M.D., C.M. (*Queen's Univ., Canada*) 1903,
 Mansifee, William Henry, M.D. (*Illinois Univ. Med. Sch.*) 1893,
 Marshall, Louis Harrington, D.D.S. (*Baltimore Med. Coll.*) 1898,
 Marston, Warren Winfield, M.D. (*Tufts Med. Sch.*) 1910,
 Marvin, David, M.D. (*Univ. of Vermont*) 1900,
 Marx, Ella, M.D. (*Univ. of Michigan*) 1887,
 Mason, Edward Halton, Jr., PH.B. (*Brown Univ.*) 1910,
 Matulaitis, Francis, M.D. (*Baltimore Med. Coll.*) 1907,
 Meserve, Edwin Alonzo,
 Meyerdig, Edward August, M.D. (*Univ. of Minnesota*) 1902,
 Mitchell, William, M.D. (*McGill Univ.*) 1894,
 Monnig, John Edward, A.B. (*St. Mary's Coll.*) 1908,
 Moon, Arnold Robert, S.B. (*Univ. of Iowa*) 1908, M.D. (*ibid.*) 1910,
 Morin, Jacob Mauritz, M.D. (*Long Island Coll. Hosp. Med. Sch.*) 1899,
 Morison, Rufus Ayers,
 Morris, Edward Romeo, M.D. (*Bellevue Hosp. Med. Coll.*) 1881,
 Morrison, William Reid, A.B. 1910,
 Moses, Alice,
 Myers, Ralph Emerson, A.B. (*Yale Univ.*) 1909, A.M. (*ibid.*) 1910,
 Nelson, Melvin Sylvanius, S.B. (*Univ. of Minnesota*) 1906, M.D. (*ibid.*) 1908,
 Newell, Charles Edward, M.D. (*Baltimore Med. Coll.*) 1906,
 Olmsted, William Harwood, S.B. (*Colorado Coll.*) 1909,
 Page, Edith,
 Parker, Harrison Lindsay,
 Penrod, Harry Hartzell, A.B. (*Pennsylvania Coll.*) 1901, A.M. (*ibid.*) 1904, M.D. (*Jefferson Med. Coll.*) 1904,
 Perry, Horace Greely, A.B. (*Arcadia Univ.*) 1903, A.M. (*Univ. of New Brunswick*) 1905,
 Pierce, Franklin Argile, M.D. (*Tulane Univ.*) 1904,
 Sierra Madre, Cal.
 St. Louis, Mo.
 Newton Highlands.
 Cochituate.
 Essex Junction, Vt.
 St. Louis, Mo.
 Providence, R. I.
 So. Boston.
 Allston.
 St. Paul, Minn.
 Needham Heights.
 Ironton, O.
 Williamsburg, Ia.
 Felton Oriente, Cuba.
 Big Stone Gap, Va.
 Winchester.
 E. Boston.
 Girard, Ala.
 Buskirk Bridge, N. Y.
 Mora, Minn.
 Derry, N. H.
 Cedar Rapids, Ia.
 Dublin, N. H.
 Winchester.
 Johnstown, Pa.
 Wolfville, N.S.
 Dallas, Texas.

- Pollard, John William Hobbs, B.L. (*Dartmouth Coll.*) 1895, M.D. (*Univ. of Vermont*) 1901, Exeter, N. H.
- Pratte, Arthur Alfred, M.D. (*Laval Univ.*) 1894, Keene, N. H.
- Preble, Minnie Isabelle, Dublin, N. H.
- Pritchard, William Percival, M.D. 1900, Fall River.
- Queener, Sampson David, M.D. (*Tennessee Med. Coll.*) 1904, Jacksboro, Tenn.
- Raymond, Katherine Piatt, S.B. (*Univ. of Cincinnati*) 1898, M.D. (*Univ. of Michigan*) 1905, Wellesley.
- Reiss, Sam George, Brooklyn, N. Y.
- Riebel, George Peter, S.B. (*Ohio Northern Univ.*) 1902, M.D. (*Ohio Med. Univ.*) 1906, Dublin, O.
- Riebel, John Augustus, M.D. (*Ohio Med. Univ.*) 1901, Columbus, O.
- Riopel, Edmund Eusebius, M.D. (*Western Reserve Univ.*) 1875, Cleveland, Ohio.
- Robbins, Elmer Ellsworth, Jr., A.B. 1910, New Bedford.
- Rockwell, Herbert George, M.D. (*Univ. of Vermont*) 1896, Amherst.
- Rogers, Daniel Eastman, M.D. 1901, Portland, No. Dak.
- Root, Charles Henry, S.B. (*Univ. of Nebraska*) 1900, M.D. (*ibid.*) 1903, Bassett, Neb.
- Rosen, David William, M.D. (*Tufts Med. Sch.*) 1910, Boston.
- Rothschild, Lippman Levy, A.B. (*Yale Univ.*) 1910, Buffalo, N. Y.
- Rudner, Henry Gordon, Memphis, Tenn.
- Ruffin, Sterling, M.D. (*Columbian Univ.*) 1890, Washington, D.C.
- Runyon, Bryce Freeman, Clarksville, Tenn.
- Scott, Ernest, S.B. (*Ohio State Univ.*) 1897, M.D. (*Ohio Med. Univ.*) 1900, Clintonville, O.
- Shreck, John Addison, M.D. (*Rush Med. Coll.*) 1891, Redlands, Cal.
- Sikorsky, Vladimir Nicholas, M.D. (*Moscow Imperial Univ., Russia*) 1895, Salem, N. H.
- Smith, Francis Hinney, A.B. (*Fredericksburg Coll.*) 1899, M.D. (*Univ. Coll. of Med., Va.*) 1904, Abingdon, Va.
- Smith, Lewis Albert, M.D. (*Ohio Med. Univ.*) 1897, Springfield.
- Smith, Robert Hineman, M.D. (*Kansas Med. Coll.*) 1905, Topeka, Kans.
- Spoon, Jan, Boston.
- Stamp, Harley, A.B. (*Mt. Union Coll.*) 1896, Philadelphia, Pa.
- Starr, George Burt, Melrose.

- Steele, William, M.D. (*Hahnemann Med. Coll., Phila.*) 1903, Philadelphia, Pa.
- Stevenson, John Dawson, M.D. (*Baltimore Med. Coll.*) 1905, Aliquippa, Pa.
- Stillman, Edgar, A.B. (*Leland Stanford Jr. Univ.*) 1911, M.D. (*Johns Hopkins Med. Sch.*) 1907, Middlebury, Conn.
- Stubbs, George Hamilton, M.D. (*Coll. of Phys. and Surg., Atlanta*) 1895, Birmingham, Ala.
- Sullivan, Daniel, M.D. (*New York Univ.*) 1897, New London, Conn.
- Swan, Horace Cheney, M.D. (*Tufts Med. Sch.*) 1903, Hartford, Conn.
- Sweek, William Oscar, St. Mary's, Mo.
- Sweeney, Edward Flagg, A.B. (*Holy Cross Coll.*) 1910, Somerville.
- Sweet, Mary Frances, M.D. (*Coll. of Med., Syracuse Univ.*) 1900, Decatur, Ga.
- Swenson, Andrew Clay, M.D. (*Yale Univ.*) 1902, Waterbury, Conn.
- Taylor, Annice, Birmingham, Ala.
- Tees, John, A.B. (*McGill Univ.*) 1891, M.D., C.M. (*ibid.*) 1896, Winnipeg, Can.
- Terrall, John Jay, S.B. (*Cornell Coll.*) 1907, Hudson, Iowa.
- Thomas, Ada Rebecca, M.D. (*Woman's Med. Coll. of Pennsylvania*) 1893, Washington, D.C.
- Toomey, Thomas Noxon, A.B. (*Catholic Univ. of America*) 1911, St. Louis, Mo.
- Trueman, Archie William, M.D. (*Univ. of Colorado*) 1908, Loma Linda, Cal.
- Turnbull, Frederick Charles, Wellington, N.Z.
- Ullman, Henry Johnson, S.B. (*Univ. of Chicago*) 1910, Chicago, Ill.
- Vaughan, Gladys Eloise Borden, A.B. (*Mt. Allison Coll.*) 1910, A.M. (*ibid.*) 1911, Wolfville, N.S.
- Walker, Melvin Harvey, Jr., A.B. (*Yale Univ.*) 1909, Westboro.
- Ward, Frederick Erastus, M.D. (*Medico Chirurgical Coll., Phila.*) 1906, Easton, Pa.
- Weber, John Finley, M.D. (*Starling Ohio Med. Coll.*) 1910, Dexter City, O.
- Wentworth, Caroline Young, M.D. (*Boston Univ. Med. Sch.*) 1895, Newton Highlands.
- Wentworth, Edward Tubbs, A.B. 1909, Batavia, N.Y.
- Wentworth, John Alexander, A.B. (*Bowdoin Coll.*) 1909, Portland, Me.

White, Julia Ann, M.D. (<i>American Med. Missionary Coll.</i>) 1900,	Loma Linda, Cal.
Wiley, Otis Monroe, M.D. (<i>New York Homeopathic Med. Coll.</i>) 1902,	Syracuse, N. Y.
Wilson, David, A.B. (<i>Cornell Univ.</i>) 1905, M.D. (<i>ibid.</i>) 1907,	Amsterdam, N. Y.
Wilson, Newton Edward, M.D. (<i>Univ. Med. Coll., Kansas City, Mo.</i>) 1907,	Douglass, Kans.
Wilson, Solon George, M.D. (<i>Tulane Med. Coll.</i>) 1901,	New Orleans, La.
Withee, Frederick Elmarien, M.D. (<i>Coll. Phys. and Surg., Baltimore</i>) 1892,	Newton Highlands.
Withington, Paul, A.B. 1909,	Cambridge.
Wadsworth, James Stevenson,	Somerville.
Wood, Clark, M.D. (<i>Jefferson Med. Coll.</i>) 1908,	Fort Smith, Ark.
Wynkoop, Edward Judson, M.D. (<i>Coll. of Med., Syracuse Univ.</i>) 1892,	Syracuse, N. Y.

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH	5
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE	
FOURTH CLASS	50
THIRD CLASS	56
SECOND CLASS	57
FIRST CLASS	95
SPECIAL STUDENTS	12
TOTAL	275

IN COURSES FOR GRADUATES, OCTOBER 1, 1910, TO JUNE 1, 1911	184
IN SUMMER COURSES, JUNE 1 TO OCTOBER 1, 1911	267
TOTAL STUDENTS OCTOBER 1, 1910, TO OCTOBER 1, 1911	726

ANNOUNCEMENT FOR 1912-13

The next session of the Medical School begins September 23, 1912. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Monday, the 23d of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should write prior to this time to the Secretary of the Harvard Medical School, in regard to conditions for admission and the applicant's ability to meet these.

CALENDAR

1912.

- Sept. 16, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 21, Saturday.* Examination in Chemistry for admission.
- Sept. 23, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Saturday.* Columbus Day: a holiday.
- Nov. 1, Friday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 28, Thursday.* Thanksgiving Day: a holiday.
- Nov. 30, Saturday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1912, TO JAN. 2, 1913, INCLUSIVE

1913.

- Jan. 1, Wednesday.* Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Wednesday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1913.
- Jan. 28, Tuesday.* Mid-year Examinations begin.
- Jan. 31, Friday.* Payment of the second instalment of the tuition-fee is required on or before this date.

- Feb. 1, Saturday.* **Second half-year begins.**
Feb. 22, Saturday. Washington's Birthday : a holiday.
April 1, Tuesday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 13 TO APRIL 19, INCLUSIVE

- May 1, Thursday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
May 1, Thursday. Last day for receiving applications for the Bullard Fellowships.
May 1, Thursday. Last day for receiving applications for Scholarships for 1913-14 (except the Cheever and Hayden Scholarships).
May 1, Thursday. Last day for receiving applications of candidates for the degree of M.D. in 1913.
May 30, Friday. Memorial Day : a holiday.
June 2, Monday. Examinations begin.
June 13, Friday. Examination in Chemistry for admission.
June 19, Thursday. **Commencement.**

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 21, INCLUSIVE

- Sept. 15, Thursday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 20, Saturday. Examination in Chemistry for admission.
Sept. 22, Monday. **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
Oct. 13, Monday. Columbus Day : a holiday.
Nov. 1, Saturday. Last day for receiving essays for the William H. Thorndike Prize.
Nov. 27, Thursday. Thanksgiving Day : a holiday
Dec. 1, Monday. Last day for receiving applications for the Cheever and Hayden Scholarships.

OFFICIAL REGISTER OF HARVARD UNIVERSITY

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The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University ; the Descriptive Pamphlet ; the Announcements of the several Departments ; etc., etc.

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OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOLUME IX

OCTOBER 30, 1912

NUMBER 45

THE
HARVARD MEDICAL SCHOOL
LONGWOOD AVENUE, BOSTON, MASS.

1912-13

WITH AN ANNOUNCEMENT FOR 1913-14



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ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

OF

HARVARD UNIVERSITY

FOR

1912—13

WITH AN ANNOUNCEMENT FOR 1913—14



PUBLISHED BY THE UNIVERSITY

1912

1912							1913						
JULY							JANUARY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
..	1	2	3	4	5	6	..	..	..	1	2	3	4
7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30	31	..	..	..	26	27	28	29	30	31	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..
AUGUST							FEBRUARY						
..	..	..	..	1	2	3	..	..	..	..	..	1	..
4	5	6	7	8	9	10	2	3	4	5	6	7	8
11	12	13	14	15	16	17	9	10	11	12	13	14	15
18	19	20	21	22	23	24	16	17	18	19	20	21	22
25	26	27	28	29	30	31	23	24	25	26	27	28	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..
SEPTEMBER							MARCH						
1	2	3	4	5	6	7	..	..	..	..	..	1	..
8	9	10	11	12	13	14	2	3	4	5	6	7	8
15	16	17	18	19	20	21	9	10	11	12	13	14	15
22	23	24	25	26	27	28	16	17	18	19	20	21	22
29	30	..	..	..	..	..	23	24	25	26	27	28	29
..	..	..	..	..	..	..	30	31	..	..	..	..	..
OCTOBER							APRIL						
..	..	1	2	3	4	5	..	..	1	2	3	4	5
6	7	8	9	10	11	12	6	7	8	9	10	11	12
13	14	15	16	17	18	19	13	14	15	16	17	18	19
20	21	22	23	24	25	26	20	21	22	23	24	25	26
27	28	29	30	31	..	..	27	28	29	30	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..
NOVEMBER							MAY						
..	..	..	..	..	1	2	..	..	..	..	1	2	3
3	4	5	6	7	8	9	4	5	6	7	8	9	10
10	11	12	13	14	15	16	11	12	13	14	15	16	17
17	18	19	20	21	22	23	18	19	20	21	22	23	24
24	25	26	27	28	29	30	25	26	27	28	29	30	31
..	..	..	..	..	..	..	..	..	..	..	..	..	..
DECEMBER							JUNE						
1	2	3	4	5	6	7	1	2	3	4	5	6	7
8													

CONTENTS

	PAGE
MEDICAL SCHOOL CALENDAR	5
FACULTY OF MEDICINE	7
FACULTY COUNCIL	10
ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL	10
ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL	11
ADMINISTRATIVE BOARD OF THE MEDICAL SCHOOL	12
GENERAL STATEMENT	13
BUILDINGS AND HOSPITAL FACILITIES	14
INSTRUCTORS, LECTURERS, AND ASSISTANTS	15
AUSTIN TEACHING FELLOWS	21
ADMISSION OF STUDENTS	22
ADMISSION TO ADVANCED STANDING	23
DIVISION OF STUDENTS	24
TABLE OF DIVISION OF STUDIES	25
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	26
Anatomy	26
Physiology	29
Comparative Physiology	31
Biological Chemistry	31
Bacteriology	32
Pathology	33
Legal Medicine	35
Comparative Pathology	35
Neuropathology	36
Preventive Medicine and Hygiene	36
Materia Medica and Therapeutics	37
Medicine	38
Tropical Medicine	41
Pediatrics	41
Roentgen Ray	43
Surgery	43
Orthopedics	46
Obstetrics and Gynaecology	47
Dermatology and Syphilis	48
Neurology and Psychiatry	49
Ophthalmology	51
Otology	51
Laryngology and Rhinology	52

	PAGE
FOURTH-YEAR ELECTIVES	52
FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS	53
EXAMINATIONS	70
DEGREES	72
FEES AND EXPENSES	73
CLINICAL ADVANTAGES	76
HOSPITAL APPOINTMENTS	79
WARREN MUSEUM	79
LIBRARIES	80
FELLOWSHIPS AND SCHOLARSHIPS	80
PRIZES	86
COURSES FOR SPECIAL STUDENTS	88
COURSES OF STUDY FOR GRADUATES	88
TABULAR VIEW OF UNDERGRADUATE COURSES	90
DEGREES CONFERRED IN 1912	96
ANNUAL EXAMINATION PAPERS	98
STUDENTS	113
ANNOUNCEMENT FOR 1913-14	140

MEDICAL SCHOOL CALENDAR

1912.

- Sept. 16, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 21, Saturday.* Examination in Chemistry for admission.
- Sept. 23, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Saturday.* Columbus Day : a holiday.
- Nov. 1, Friday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 28, Thursday.* Thanksgiving Day : a holiday.
- Nov. 30, Saturday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

1913.

RECESS FROM DEC. 23, 1912, TO JAN. 2, 1913, INCLUSIVE

- Jan. 1, Wednesday.* Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Wednesday.* Last day for receiving applications for admission to examinations for the degrees of Ph.D. and A.M. in 1913.
- Jan. 28, Tuesday.* Mid-year Examinations begin.
- Jan. 31, Friday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Saturday.* **Second half-year begins.**
- Feb. 22, Saturday.* Washington's Birthday : a holiday.
- April 1, Tuesday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 13 TO APRIL 19, INCLUSIVE

<i>May 1, Thursday.</i>	Last day for receiving applications for the Bullard Fellowships.
<i>May 1, Thursday.</i>	Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
<i>May 1, Thursday.</i>	Last day for receiving applications for Scholarships for 1913-14 (except the Cheever and Hayden Scholarships).
<i>May 1, Thursday.</i>	Last day for receiving applications of candidates for the degree of M.D. in 1913.
<i>May 30, Friday.</i>	Memorial Day: a holiday.
<i>June 2, Monday.</i>	Examinations begin.
<i>June 14, Saturday.</i>	Examination in Chemistry for admission.
<i>June 19, Thursday.</i>	Commencement.

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 21,
INCLUSIVE

<i>Sept. 15, Monday.</i>	Examinations begin for applicants for advanced standing, and for men previously conditioned.
<i>Sept. 20, Saturday.</i>	Examination in Chemistry for admission.
<i>Sept. 22, Monday.</i>	Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
<i>Oct. 13, Monday.</i>	Columbus Day: a holiday.
<i>Nov. 1, Saturday.</i>	Last day for receiving essays for the William H. Thorndike Prize.
<i>Nov. 27, Thursday.</i>	Thanksgiving Day: a holiday.
<i>Dec. 1, Monday.</i>	Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL

FACULTY OF MEDICINE *

ADDRESS.†

ABBOTT LAWRENCE LOWELL, LL.B., LL.D., Ph.D., PRESIDENT,	17 Quincy St., Cambridge.
EDWARD H. BRADFORD, M.D., DEAN,	133 Newbury St.
CLARENCE J. BLAKE, M.D., <i>Walter Augustus Le-</i> <i>compte Professor of Otology,</i>	226 Marlborough St.
JOHN H. MCCOLLOM, M.D., S.M., <i>Professor of Con-</i> <i>tagious Diseases,</i>	Boston City Hospital.
ABNER POST, M.D., <i>Professor of Syphilis,</i>	16 Newbury St.
CHARLES A. BRACKETT, D.M.D., <i>Professor of</i> <i>Dental Pathology,</i>	Newport, R.I.
THOMAS MORGAN ROTCH, M.D., <i>Professor of</i> <i>Pediatrics,</i>	197 Commonwealth Ave.
EUGENE H. SMITH, D.M.D., <i>Professor of Clinical</i> <i>Dentistry and Orthodontia, and Dean of the Dental</i> <i>School,</i>	283 Dartmouth St.
WILLIAM F. WHITNEY, M.D., <i>John Barnard Swett</i> <i>Jackson Curator of the Warren Anatomical Museum,</i>	Harvard Medical School.
CHARLES S. MINOT, S.D., LL.D., <i>James Stillman</i> <i>Professor of Comparative Anatomy,</i>	Harvard Medical School.
CHARLES M. GREEN, M.D., <i>Professor of Obstetrics</i> <i>and Gynaecology,</i>	78 Marlborough St.
EDWARD C. BRIGGS, M.D., D.M.D., <i>Professor of</i> <i>Dental Materia Medica and Therapeutics,</i>	129 Marlborough St.
WILLIAM T. COUNCILMAN, M.D., LL.D., <i>Shattuck</i> <i>Professor of Pathological Anatomy,</i>	78 Bay State Road.
GEORGE HOWARD MONKS, M.D., M.R.C.S., <i>Pro-</i> <i>fessor of Oral Surgery,</i>	67 Marlborough St.
MYLES STANDISH, M.D., S.D., <i>Williams Professor of</i> <i>Ophthalmology,</i>	6 St. James Ave.

* Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- HAROLD C. ERNST, M.D., *Professor of Bacteriology,*
Harvard Medical School.
- WILLIAM P. COOKE, D.M.D., *Professor of Prosthetic*
Dentistry, 330 Dartmouth St.
- PHILIP COOMBS KNAPP, M.D., *Clinical Instructor*
in Diseases of the Nervous System, 535 Beacon St.
- WILLIAM H. POTTER, D.M.D., *Professor of Operative*
Dentistry, 16 Arlington St.
- HERMAN F. VICKERY, M.D., *Instructor in Clinical*
Medicine, 263 Beacon St.
- GEORGE G. SEARS, M.D., *Clinical Professor of Medi-*
cine, 426 Beacon St.
- ALGERNON COOLIDGE, JR., M.D., *Professor of*
Laryngology, 613 Beacon St.
- ROBERT W. LOVETT, M.D., *Assistant Professor of*
Orthopedic Surgery, 234 Marlborough St.
- FRANZ PFAFF, M.D., *Professor of Pharmacology and*
Therapeutics, 29 Gloucester St.
- THEOBALD SMITH, M.D., LL.D., S.D., *George*
Fabian Professor of Comparative Pathology,
Harvard Medical School.
- WILLIAM T. PORTER, M.D., LL.D., *Professor of*
Comparative Physiology, Dover.
- PAUL THORNDIKE, M.D., *Assistant Professor of*
Genito-Urinary Surgery, 24 Marlborough St.
- HORACE D. ARNOLD, M.D., *Dean of the Graduate*
School of Medicine, Harvard Medical School
- MILTON J. ROSENAU, M.D., *Professor of Preventive*
Medicine and Hygiene, 65 Naples Road, Brookline.
- FRANK B. MALLORY, M.D., *Associate Professor of*
Pathology, Harvard Medical School
- EDWARD H. NICHOLS, M.D., *Assistant Professor*
of Surgical Pathology and Assistant Professor of Sur-
gery, 294 Marlborough St.
- J. BAPST BLAKE, M.D., *Assistant Professor of Sur-*
gery, 161 Beacon St.
- HOWARD A. LOTHROP, M.D., *Assistant Professor of*
Surgery, 101 Beacon St.
- JOHN L. MORSE, M.D., *Associate Professor of Pedi-*
atrics, 70 Bay State Road.
- CHARLES A. PORTER, M.D., *Assistant Professor of*
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- EDWARD W. TAYLOR, M.D., *Assistant Professor of*
Neurology, 457 Marlborough St.
- RICHARD C. CABOT, M.D., *Assistant Professor of*
Clinical Medicine, 190 Marlborough St.
- DAVID L. EDSALL, M.D., *Jackson Professor of Clin-*
ical Medicine, 80 Marlborough St.
- ELLIOTT P. JOSLIN, M.D., *Assistant Professor of*
the Theory and Practice of Physic, 81 Bay State Road.
- CHARLES J. WHITE, M.D., *Assistant Professor of*
Dermatology, 259 Marlborough St.
- JAMES H. WRIGHT, M.D., S.D., *Assistant Professor*
of Pathology, Mass. General Hospital.
- HARVEY CUSHING, M.D., *Professor of Surgery,*
 305 Walnut St., Brookline.
- WILLIAM P. GRAVES, M.D., *Professor of Gynae-*
cology, 244 Marlborough St.
- OTTO FOLIN, PH.D., *Hamilton Kuhn Professor of*
Biological Chemistry, Harvard Medical School.
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of Obstetrics and Gynaecology, 379 Beacon St.
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tology, Harvard Medical School.
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 Harvard Medical School.
- DAVID CHEEVER, M.D., *Demonstrator of Anatomy,* 20 Hereford St.
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Embryology, Harvard Medical School.
- ERNEST G. MARTIN, PH.D., *Assistant Professor of*
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- ERNEST E. TYZZER, M.D., *Assistant Professor of*
Pathology, Harvard Medical School.

- LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry*, Harvard Medical School.
 HOWARD T. KARSNER, M.D., *Assistant Professor of Pathology*, Harvard Medical School.
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 MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology*, Warren St., Brookline.
 CHANNING FROTHINGHAM, Jr., M.D., *Secretary of the Faculty of Medicine, and Assistant in the Theory and Practice of Physic*, 51 Hereford St.

FACULTY COUNCIL

- EDWARD H. BRADFORD, M.D., *Dean of the Faculty of Medicine*.
 ABNER POST, M.D., *Professor of Syphilis*.
 HAROLD C. ERNST, M.D., *Professor of Bacteriology*.
 J. BAPST BLAKE, M.D., *Assistant Professor of Surgery*.
 OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry*.
 HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic*.
 JOHN WARREN, M.D., *Assistant Professor of Anatomy*.

ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL

The Dean's Office is in the Administration Building of the Medical School, Room 104. It is open daily from 9 to 1 and from 2 to 5, except on Saturdays, Sundays, and holidays; on Saturdays it is open from 9 to 1. Those seeking information about the Medical School should inquire at this office.

The Bursar's Office is in Dane Hall, Harvard University, Cambridge. It is open daily, except Sundays and holidays, from 9 to 1, for the receipt of fees, payments, and other financial business. A representative of the Bursar will be in the Administration Building at the Medical School at stated hours on certain days at the opening of each term for the receipt of fees from regular students.

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL

President: ABBOTT LAWRENCE LOWELL, LL.B., LL.D., PH.D.

Office, 5 University Hall, Cambridge.

Dean: EDWARD H. BRADFORD, M.D.

Office, Administration Building, Medical School. Office hours, Fridays, 4 to 5 P.M.

Secretary of the Faculty: CHANNING FROTHINGHAM, Jr., M.D.

Office, Administration Building, Medical School. Office hour, Mondays, 4 to 5 P.M.

Director of Scholarships: FRANKLIN DEXTER, M.D.

Office, Room 386, Building D I, Medical School. Office hours, Mondays, 2.45 to 3.15 P.M., for appointments.

Chairman of the Committee on the Degree of Doctor of Public Health: MILTON J. ROSENAU, M.D.

Office, Room 238, Building E II, Medical School. Office hours by appointment.

Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences: WALTER B. CANNON, M.D.

Office, Room 301, Building C I, Medical School. Office hours, Mondays, 2 to 3 P.M.

Dean of the Graduate School of Medicine: HORACE D. ARNOLD, M.D.

Office hours, Thursdays, 12 M. to 1 P.M.

Secretary of the Graduate School of Medicine: FRANCIS W. PALFREY, M.D.

Office hours, Mondays and Thursdays, 4 to 5 P.M.

Chief Clerk in the Dean's Office: HELEN G. MEDBURY.

Office, Administration Building, Medical School. Office hours, from 9 to 1 and from 2 to 5 daily, except Saturdays; on Saturdays, from 9 to 1.

ADMINISTRATIVE BOARD

EDWARD H. BRADFORD, M.D. (*ex officio*), DEAN.

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

ALGERNON COOLIDGE, JR., M.D. *Professor of Laryngology.*

MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

HARVEY CUSHING, M.D., *Professor of Surgery.*

ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery.*

HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

JOHN L. BREMER, M.D., *Assistant Professor of Histology.*

JOHN WARREN, M.D., *Assistant Professor of Anatomy.*

CHANNING FROTHINGHAM, JR., M.D. (*ex officio*), *Secretary of the Faculty of Medicine and Assistant in the Theory and Practice of Physic.*

THE HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of BACHELOR OF MEDICINE; beginning with 1811, the degree has been DOCTOR OF MEDICINE. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first MEDICAL COLLEGE was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Monday preceding the last Wednesday in September, and ends on the Thursday preceding the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth-year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

Beginning with 1906, special students, not candidates for the degree of Doctor of Medicine, have been admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 88.

For the class entering in September, 1912, a system of general examinations was adopted. These examinations are in part written, in part oral. The first comes after two years of medical study; the second after four years. In addition there are practical examinations following each course. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 71.

The degree of Doctor of Medicine *cum laude* is given to candidates who obtain an average of 80 per cent or over in all the required examinations.

In 1912 the Graduate School of Medicine was established to take charge of the graduate instruction throughout the entire year. This instruction formerly came under Courses for Graduates and the Summer School of Medicine.

Inquiries may be addressed to the Secretary of the Harvard Medical School, Longwood Avenue, Boston, Mass.

THE MEDICAL SCHOOL BUILDINGS AND HOSPITAL FACILITIES

In September, 1906, the Medical School moved into its new buildings, which occupy eleven acres on Longwood Avenue, Boston. The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, biological chemistry, and theory and practice of physic; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) preventive medicine and hygiene, pharmacology, comparative pathology, and surgery.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms were originally designed. These buildings provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

At the present time the clinical instruction is carried on in the wards and out-patient departments of the Massachusetts General Hospital, Boston City Hospital, Boston Lying-in Hospital, Boston Dispensary, Massachusetts Babies' Hospital, Infants' Hospital, Children's Hospital, McLean Hospital, Boston State Hospital, Psychopathic Hospital, Massachusetts Charitable Eye and Ear Infirmary, Long Island Hospital, Carney Hospital, Free Hospital for Women, Samaritan Hospital, and Collis P. Huntington Memorial Hospital. For a detailed statement of the number of patients treated in these hospitals, see pages 76-79.

The Peter Bent Brigham Hospital, for general medical and surgical cases, will be completed during the current year and its facilities will be offered for teaching.

INSTRUCTORS, LECTURERS, AND ASSISTANTS *

EDWARD COWLES, M.D., LL.D., <i>Instructor in Men- tal Diseases,</i>	ADDRESS † 419 Boylston St.
GEORGE T. TUTTLE, M.D., <i>Clinical Instructor in Mental Diseases,</i>	McLean Hospital, Waverley.
SAMUEL J. MIXTER, M.D., <i>Lecturer on Surgery,</i>	180 Marlborough St.
GEORGE H. MONKS, M.D., M.R.C.S., <i>Lecturer on Surgery,</i>	67 Marlborough St.
FRANCIS B. HARRINGTON, M.D., <i>Lecturer on Surgery,</i>	201 Beacon St.
WILLIAM F. KNOWLES, M.D., <i>Assistant in Otology,</i>	220 Clarendon St.
J. PAYSON CLARK, M.D., <i>Instructor in Laryngology,</i>	71 Marlborough St.

* Arranged on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- CHARLES L. SCUDDER, M.D., *Lecturer on Surgery*, 209 Beacon St.
 ELLIOTT G. BRACKETT, M.D., *Instructor in Ortho-*
pedics, 166 Newbury St.
 WILLIAM N. SOUTER, M.D., *Fellow in Ophthal-*
mology, Portsmouth, N. H.
 ARTHUR K. STONE, M.D., *Instructor in the Theory*
and Practice of Physic, 44 Fairfield St.
 FREDERIC C. COBB, M.D., *Instructor in Laryngology*,
 11 Marlborough St.
 AUGUSTUS THORNDIKE, M.D., *Instructor in Ortho-*
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 JAMES G. MUMFORD, M.D., *Lecturer on Surgery*,
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 MALCOLM STORER, M.D., *Instructor in Gynaecology*,
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 LANGDON FROTHINGHAM, M.D.V., *Instructor in*
Bacteriology, Harvard Medical School.
 WILLIAM E. FAULKNER, M.D., *Instructor in Surgery*,
 290 Marlborough St.
 ALEXANDER QUACKENBOSS, M.D., *Instructor in*
Ophthalmology, 143 Newbury St.
 EUGENE A. CROCKETT, M.D., *Instructor in Otology*,
 298 Marlborough St.
 FRED B. LUND, M.D., *Lecturer on Surgery*, 527 Beacon St.
 ALFRED M. AMADON, M.D., *Assistant in Otology*, 543 Boylston St.
 JOSEPH L. GOODALE, M.D., *Instructor in Laryn-*
gology, 258 Beacon St.
 JAMES S. STONE, M.D., *Instructor in Surgery*, 234 Marlborough St.
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gology, 234 Clarendon St.
 PHILIP HAMMOND, M.D., *Instructor in Otology*, 483 Beacon St.
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 HENRY F. HEWES, M.D., *Instructor in the Theory*
and Practice of Physic, 125 Marlborough St.
 CALVIN G. PAGE, M.D., *Instructor in Bacteriology*,
 128 Marlborough St.
 C. MORTON SMITH, M.D., *Instructor in Syphilis*,
 437 Marlborough St.
 FRANKLIN W. WHITE, M.D., *Instructor in Clinical*
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 ERNEST A. CODMAN, M.D., *Assistant in Surgery*, 227 Beacon St.

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- JOSHUA C. HUBBARD, M.D., *Assistant in Surgery*, 84 Bay State Road.
- DANIEL F. JONES, M.D., *Assistant in Surgery*, 195 Beacon St.
- HARRIS P. MOSHER, M.D., *Instructor in Laryngology and in Anatomy*, 828 Beacon St.
- HENRY J. PERRY, M.D., *Assistant in Bacteriology*, 636 Beacon St.
- ERNEST B. YOUNG, M.D., *Instructor in Gynaecology*, 434 Marlborough St.
- FREEMAN ALLEN, M.D., *Lecturer on Anaesthesia*, 200 Beacon St.
- SAMUEL W. ELLSWORTH, M.D., *Assistant in the Use of the Roentgen Ray*, 18 Russell Park, Quincy.
- FRED M. SPALDING, M.D., *Instructor in Ophthalmology*, 390 Commonwealth Ave.
- HOWARD T. SWAIN, M.D., *Instructor in Obstetrics*, 68 Marlborough St.
- FREDERICK S. BURNS, M.D., *Instructor in Dermatology*, 224 Marlborough St.
- LE ROI G. CRANDON, M.D., *Assistant in Surgery*, 366 Commonwealth Ave.
- HARRY F. HARTWELL, M.D., *Assistant in Surgery*, 9 Massachusetts Ave.
- WALTER C. HOWE, M.D., *Assistant in Surgery*, 303 Beacon St.
- MAYNARD LADD, M.D., *Instructor in Pediatrics*, 270 Clarendon St.
- GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine*, 274 Boylston St.
- JOSEPH H. PRATT, M.D., *Instructor in the Theory and Practice of Physic*, 317 Marlborough St.
- ROBERT SOUTTER, M.D., *Assistant in Orthopedics*, 133 Newbury St.
- DAVID H. WALKER, M.D., *Assistant in Otology*, 390 Commonwealth Ave.
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- ROBERT B. OSGOOD, M.D., *Assistant in Orthopedics*, 372 Marlborough St.

- CHANNING C. SIMMONS, M.D., *Assistant in Surgery*,
317 Marlborough St.
- JAMES R. TORBERT, M.D., *Assistant in Obstetrics*,
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rology, 410 Beacon St.
- PERCY BROWN, M.D., *Assistant in the Use of the*
Roentgen Ray, 155 Newbury St.
- CHARLES H. DUNN, M.D., *Instructor in Pediatrics*,
178 Marlborough St.
- EDWIN A. LOCKE, M.D., *Instructor in Clinical Medi-*
cine, 311 Beacon St.
- HERMAN M. ADLER, M.D., *Instructor in Mental*
Diseases, 74 Fenwood Road.
- HORACE BINNEY, M.D., *Assistant in Genito-Urinary*
Surgery, 205 Beacon St.
- FREDERICK T. LORD, M.D., *Instructor in Clinical*
Medicine, 305 Beacon St.
- NATHANIEL R. MASON, M.D., *Assistant in Obstetrics*
and Gynaecology, 483 Beacon St.
- HENRY I. BOWDITCH, M.D., *Clinical Instructor in*
Pediatrics, 416 Marlborough St.
- ROBERT L. DENORMANDIE, M.D., *Assistant in Ob-*
stetrics, 357 Marlborough St.
- HARRY W. GOODALL, M.D., *Assistant in Biological*
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- FRANCIS W. PALFREY, M.D., *Assistant in the Theory*
and Practice of Physic, 88 Beacon St.
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121 Centre St., Brookline.
- CALVIN B. FAUNCE, JR., M.D., *Assistant in Otology*,
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- JOHN B. HARTWELL, M.D., *Assistant in Anatomy*,
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- RICHARD M. SMITH, M.D., *Assistant in Pediatrics*, 329 Beacon St.
- JAMES H. YOUNG, M.D., *Fellow in Pediatrics*, 430 Centre St., Newton.
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- ALEXANDER FORBES, M.D., *Instructor in Physiology*, Milton.
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- HENRY F. KEEVER, M.D., *Fellow in Pediatrics*, Auburndale.
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- DONALD MACOMBER, M.D., *Alumni Assistant in Obstetrics*, 416 Marlborough St.
- EDWARD L. YOUNG, JR., M.D., *Assistant in Anatomy*, 216 Newbury St.
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- LEWIS H. WEED, A.M., *Fellow in charge of the Laboratory of Surgical Research*, Harvard Medical School.
EDWIN A. BOYDEN, A.M., *Teaching Fellow in Histology and Embryology*, Harvard Medical School.
FRANCIS B. KINGSBURY, A.M., *Teaching Fellow in Biological Chemistry*, Harvard Medical School.
LAWSON G. LOWREY, A.M., *Teaching Fellow in Histology and Embryology*, 10 Park Drive, Brookline.

AUSTIN TEACHING FELLOWS

- CLEAVELAND FLOYD, M.D., *in Bacteriology*, 246 Marlborough St.
HALSEY B. LODER, M.D., *in Surgery*, Harvard Medical School.
J. HOWARD BROWN, S.M., *in Comparative Pathology*,
24 Farrington Ave., Allston.
JAMES L. MORRIS, A.M., *in Biological Chemistry*, 9 Norway St.
CHESTER H. HEUSER, A.M., *in Histology and Embryology*, 6 Park Drive, Brookline.
CHARLES M. GRUBER, A.M., *in Physiology*, 706 Huntington Ave.

THE HARVARD MEDICAL SCHOOL

ADMISSION OF STUDENTS

I. Students who have acquired from a recognized college or scientific school a degree in arts or science, following the completion of a course of at least three collegiate years, are admitted as regular students and candidates for the degree of M.D. provided they present certificates showing that they have done satisfactory work in chemistry equivalent to two college courses, with laboratory work in each amounting at least to four hours per week. These courses in chemistry should include general chemistry, organic chemistry, and qualitative analysis; some practice in making careful quantitative determinations is desirable. In case the student cannot present such certificates in chemistry he will be required to pass examinations in these subjects. Students who are not quite able to fulfil all of the requirements in chemistry may enter conditioned in chemistry; but they must make up the condition before the beginning of the second term of the first year.* Furthermore, an elementary knowledge of physics and biology is required of the student in his first general examination.

II. Candidates who present certificates showing that they have completed two years of undergraduate work at a recognized college or scientific school will be admitted as special students, provided they are able to read French or German and have taken the following college courses, with at least four hours of laboratory work per week in each. (The minimum proportion of a college year to be devoted to each is indicated.)

* It is recommended to those who propose to study medicine that they include among their studies in college certain courses which serve as a direct preparation for or are aids in the study of medicine. Such studies are:—

Chemistry as outlined under I.

Physics. A college course in experimental physics extending through the college year and including at least four hours of laboratory work per week. The laboratory work should consist largely of accurate physical measurements.

Biology. Two college courses with laboratory work in each amounting to at least four hours per week. This work should include general biology, the dissection of vertebrates, and practice in the use of the microscope and in microscopic technique.

French and German. Any courses requiring considerable practice in reading.

The courses offered by the Harvard Faculty of Arts and Sciences which fit these recommendations are as follows: Physics *C* or 1; Chemistry *A* or 1 *hf.*, 2 *hf.*, and 3; Zoölogy 1 *hf.*, 3 *hf.*, and 4 *hf.*; Botany 1 *hf.* and 2 *hf.*; together with several courses in French and German.

Physics ($\frac{1}{4}$ year or 250 hours).

General Chemistry ($\frac{1}{4}$ year or 250 hours).

Qualitative Analysis ($\frac{1}{8}$ year or 125 hours).

Organic Chemistry ($\frac{1}{8}$ year or 125 hours).

Zoölogy (which must include dissection of vertebrates and work with the microscope) ($\frac{1}{4}$ year or 250 hours).

Special students who attain an average grade within five points of the honor mark in their years of residence at the Harvard Medical School will be accepted as candidates for the degree of M.D.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other recognized medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations and fulfil all requirements of laboratory and practical work in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission enumerated under I. Other students who fulfil the requirements for admission enumerated under II may be admitted to advanced standing as special students provided they furnish satisfactory certificate of time spent in medical studies, pass examinations and fulfil all requirements of laboratory and practical work in branches already pursued by the class to which they seek admission. Special students admitted to advanced standing may be accepted as candidates for the degree of M.D. provided they attain an average grade within five points of the honor mark in the years of their residence at the Harvard Medical School.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations and by fulfilling all requirements of laboratory and practical work required in the full undergraduate course, and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations.

Applicants for advanced standing and graduates of another medical school who have fulfilled in another recognized medical school the requirements of laboratory or practical work of a department of this School may be excused from repeating such requirements, provided the instruction which they have received is considered satisfactory by the Committee on Admission in conference with the head of the department concerned.

ADMISSION TO ADVANCED STANDING AFTER THE SESSION

1913-14 *

Both general examinations,† including the practical examinations, shall be required of every student before graduation from the Harvard Medical School, and these examinations, including practical examinations, shall be given under the supervision of the Committee on Examinations. The requirements for admission to each general examination shall be the same for those entering for advanced standing as for those regularly enrolled in the Harvard Medical School from the beginning of the first year of medical study, except that courses pursued at other recognized medical schools in character and quality equivalent to similar courses in this School will be accepted in place of these courses in this School when satisfactory evidence of having pursued such courses is presented to the Dean. No student shall be admitted to the third-year work until he has passed the first general examination, and no student shall be admitted to the second general examination who has not spent at least one year in resident study at the Harvard Medical School.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University after a year's study in the undergraduate course, by fulfilling all the requirements for admission to the first and second general examinations, by passing these examinations, by fulfilling all requirements of laboratory and practical work required in the full undergraduate course, and by fulfilling all requirements for admission.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required practical examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed the first general examination.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has failed on all of the practical examinations on first-year subjects.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Monday, the first day of the academic year.

Students are required to devote themselves exclusively to the work of the School.‡

Any student may obtain a certificate of his period of connection with the School.

* These rules also apply to students who join the class that entered Sept. 23, 1912.

† See examinations, page 70.

‡ The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR ELECTIVES
Anatomy Histology and Embryology Physiology Biochemistry	Bacteriology Pathology Preventive Medicine and Hygiene <i>Materia Medica and Therapeutics</i> <i>Theory and Practice</i> <i>Clinical Medicine</i> <i>Surgery</i>	Materia Medica and Therapeutics Theory and Practice Clinical Medicine Pediatrics Surgery (written 2 hrs., practical 1 hr.) Clinical Surgery (written 1 hr., practical 1 hr.) Obstetrics Gynaecology Dermatology Syphilis Neurology Psychiatry Ophthalmology Otology Laryngology <i>Genito-Urinary Surgery</i> <i>Legal Medicine</i>	Anatomy 1, 2, 3, 4, 5, 6 and 7 Physiology 1 and 2 Comparative Physiology 1 and 2 Biochemistry 1 Bacteriology 1 Pathology 1, 2 and 3 Comparative Pathology 1, 2 and 3 Neuropathology 1 and 2 Preventive Medicine and Hygiene 1 Legal Medicine Experimental Pharmacology. Medicine 1, 2, 3, 4 and 5 Tropical Medicine Roentgen Ray 1 and 2 Pediatrics 1 Surgery 1, 2, 3, 4, 5, 6, 7, 8 and 9. Orthopedics 1 and 2 Obstetrics 1 Gynaecology 1 Dermatology and Syphilis 1, 2 and 3 Neurology and Psychiatry 1 Ophthalmology 1 and 2 Otology 1, 2 and 3. Laryngology 1

NOTE. — Subjects not completed in a given year are in *italics*. In the fourth year, electives must be chosen aggregating 1000 hours; both half-courses and quarter-courses are offered occupying 125 and 65 hours respectively.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
Ch.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
I.H.	= Infants' Hospital.
L.I.H.	= Long Island Hospital.
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
M.B.H.	= Massachusetts Babies' Hospital.
P.H.	= Psychopathic Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.H.	= Samaritan Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

CHARLES S. MINOT, S.D., LL.D., *James Stillman Professor of Comparative Anatomy.*

JOHN L. BREMER, M.D., *Assistant Professor of Histology.*

JOHN WARREN, M.D., *Assistant Professor of Anatomy.*

FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology.*

DAVID CHEEVER, M.D., *Demonstrator of Anatomy.*

HARRIS P. MOSHER, M.D., *Instructor in Anatomy.*

ROBERT M. GREEN, M.D., *Instructor in Anatomy.*

JOHN B. HARTWELL, M.D., *Assistant in Anatomy.*

WALTER M. BOOTHBY, M.D., *Assistant in Anatomy.*

ALBERT EHRENFRIED, M.D., *Assistant in Anatomy.*

EDWARD H. RISLEY, M.D., *Assistant in Anatomy.*

WILLIAM S. WHITEMORE, M.D., *Assistant in Anatomy.*

EDWARD L. YOUNG, JR., M.D., *Assistant in Anatomy.*

EDWIN A. BOYDEN, A.M., *Teaching Fellow in Histology and Embryology.*

LAWSON G. LOWREY, A.M., *Teaching Fellow in Histology and Embryology.*

ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy.*

CHESTER H. HEUSER, A.M., *Austin Teaching Fellow in Histology and Embryology.*

In this department instruction is given in Anatomy, Comparative Anatomy, Histology and Embryology. The department occupies the Morgan Anatomical Building, the dissecting rooms being in the wing designated BI, and the laboratories for Histology, Embryology, and Comparative Anatomy in the wing BII. There are separate rooms for fourth-year and graduate students and for various kinds of technical work. The class work is carried on by sections in unit rooms, which are well lighted, and thoroughly equipped. Each unit room measures twenty-three by thirty feet and is designed to accommodate twelve or twenty-four students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about ten thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for work in human and comparative anatomy and embryology.

The Embryological Collection is a unique feature of the laboratory. It comprises over nineteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes fifty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet obtained. The collection of embryological models contains the standard series and many unique original models.

REGULAR COURSES

First Year.—This course is intended to teach the normal gross anatomy, histology and embryology of the human body. Half of the time is devoted to work in the dissecting rooms, the other half to work in the histological and embryological laboratories. In the study of gross anatomy, each student makes a complete dissection of one side of the human body,

and all of the class dissect the same part at the same time. The general order of dissection is as follows:—body-wall; lower extremity; thoracic, abdominal and pelvic cavities; head; neck; upper extremity. The study of the skeleton is carried on with the dissection, and each student is obliged to draw carefully a certain number of selected frozen sections of the body. The lectures and demonstrations are arranged to follow closely the work in the dissecting room.

The part of the course dealing with microscopic anatomy is a study of cells, tissues, and organs, from the developmental standpoint. Cell structure and the fundamental tissues are considered first. This is followed by a study of chick embryos of 30 and 48 hours and pig embryos of 20 days, in which special stress is laid on the origin and growth of the different organs. During the remainder of the course the organs of the adult are studied in succession. In connection with the uterus, the human placenta and fetal membranes are considered. The month of January is devoted to the central nervous system and sense organs.

Fees.—Each regular medical student is charged a laboratory fee of twelve dollars, of which nine dollars is for dissecting room material, and three dollars for chemicals and microscopical sections. This laboratory fee is to be paid to the Bursar. At the beginning of the course each student is provided with a locker in the dissecting room and another in the histological laboratory. One dollar is deposited for each locker, to be repaid on returning the locker keys. At the end of the course any student who has broken or lost material belonging to the laboratory will be charged the cost of replacing the same.

Microscopes.—Every student is advised to purchase a microscope, but microscopes may be rented at four dollars for the term.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 53.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

FIRST YEAR

<i>October, November, December, and January</i>		HOURS
Lectures. Professor MINOT, Asst. Professors LEWIS, WARREN, and BREMER. <i>Eleven lectures a week, nine hours.</i>		144
Demonstrations. <i>To sections of the class, at the pleasure of the instructors.</i>		
Laboratory work. <i>Six and one-half hours five times a week.</i>		520

INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

ERNEST G. MARTIN, Ph.D., *Assistant Professor of Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

RUSSELL F. SHELDON, M.D., *Assistant in Physiology.*

LEONARD B. NICE, Ph.D., *Teaching Fellow in Physiology.*

HENRY LYMAN, M.D., *Teaching Fellow in Physiology.*

EUGENE L. PORTER, A.M., *Fellow in Physiology.*

CHARLES M. GRUBER, A.M., *Austin Teaching Fellow in Physiology.*

First Year.—The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of

secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology or Biological Chemistry, based upon reading of the records of original investigations, is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Theses in Physiology, which are closely related to the regular instruction, are presented before the class; in each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. The examination books are returned, corrected, to the students. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 54.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

FIRST YEAR (Second half)

	HOURS
Laboratory experiments. Professor CANNON, Asst. Professor MARTIN, Drs. FORBES, NICE, LYMAN, and Mr. GRUBER. <i>Daily</i> .	160
Quizzes (14). <i>One hour Saturdays</i> .	14
Written tests (5). <i>One hour Mondays</i> .	5
Lectures (90). Professor CANNON, Asst. Professor MARTIN, and Dr. FORBES.	90
Special demonstrations (30). Professor CANNON, Asst. Professor MARTIN, and Dr. FORBES.	15
Discussion of Theses (30).	22
Thesis. Written by each student from the original sources.	
Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology*.

I. *Physiological Research*. Students qualified for research will pursue their investigations under the immediate direction of the professor in charge.

II. *Comparative Physiology of Muscle*. Professor PORTER. Three hours weekly during February and March.

III. *Physiological Conference*. Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry*.
LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry*.

HARRY W. GOODALL, M.D., *Assistant in Biological Chemistry*.

ALFRED WILLSON BOSWORTH, S.B., *Assistant in Biological Chemistry.*
 CHESTER J. FARMER, *Assistant in Biological Chemistry.*
 FRANCIS B. KINGSBURY, A.B., *Teaching Fellow in Biological Chemistry.*

JAMES LUCIEN MORRIS, A.M., *Austin Teaching Fellow in Biological Chemistry.*

FIRST YEAR

Biochemistry I. — The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, by Dr. HENDERSON and Mr. FARMER; and of the general principles and more important facts of physiological chemistry, by Professor FOLIN and Dr. GOODALL.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

FIRST YEAR (Second half)

	HOURS
Lectures. Professor FOLIN and Asst. Professor HENDERSON. <i>One hour five times a week.</i>	80
Laboratory work. Professor FOLIN, Mr. FARMER, Mr. KINGSBURY, and Mr. MORRIS. <i>Two and one-half hours five times a week.</i>	200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*
 S. BURT WOLBACH, M.D., *Assistant Professor of Bacteriology.*
 LANGDON FROTHINGHAM, M.D.V., *Instructor in Bacteriology.*
 CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*
 HENRY J. PERRY, M.D., *Assistant in Bacteriology.*
 HAROLD W. DANA, M.D., *Assistant in Bacteriology.*
 FREDERIC A. STANWOOD, M.D., *Assistant in Bacteriology.*

CLEVELAND FLOYD, M.D., *Austin Teaching Fellow in Bacteriology.*

Second Year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures. Professor ERNST. <i>Daily, except Saturdays, during October and November.</i>	40
Laboratory work. Professor ERNST, and Drs. FROTHINGHAM, PAGE, PERRY, DANA, STANWOOD, and FLOYD. <i>Two to three hours daily during October and November.</i>	120

Pathology.

WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology.*

ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology.*

HOWARD T. KARSNER, M.D., *Assistant Professor of Pathology.*

FREDERICK H. VERHOEFF, M.D., *Instructor in Ophthalmic Pathology.*

JAMES E. ASH, M.D., *Instructor in Pathology.*

NATHAN CHANDLER FOOT, M.D., *Assistant in Pathology.*

Second Year. — The course in Pathology consists of laboratory work and lectures. The basis of the laboratory work is the systematic course in pathological histology. In connection with this there are demonstrations of material bearing on the subjects studied and experiments. In this work the students are divided into small sections. The demonstrations are given to these sections and the experimental work on anaesthetized animals is carried out by the sections under the direction and supervision of Asst. Professor KARSNER, who has charge of this branch of the work. The demonstrations and experimental work are given in rooms adjoining the main laboratory which are adequately provided with apparatus. Both the demonstrations and experiments are in connection with the subjects which are being studied. Lectures are given five days in the week, the object of the lectures being rather to expand and coördinate the knowl-

edge which the student is acquiring by his study of material than to impart new information. During the entire period of the course groups of students are sent to the various hospitals to see and assist in post-mortem examinations. Each group prepares microscopical specimens of the tissues from the autopsy, which are studied under direction and described. No attempt is made to separate the subject of Pathology into general pathology and pathological anatomy, but the subject is studied as a whole. In teaching the student is taught methods of work, is given material, and directed; but he is taught to work independently. Tumors and other material coming from the surgical clinics are made full use of in the course.

On Saturday conferences and recitations are substituted for the regular laboratory work.

In the forenoons of the second and third weeks of December, Professor T. SMITH gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR	HOURS
Lectures. Professor COUNCILMAN. <i>Daily for fourteen weeks, October, November, December (first week only), and January.</i>	84
Lectures. Professor T. SMITH. <i>One hour daily, second and third weeks of December.</i>	12
Laboratory work. Professor COUNCILMAN, Assistant Professor KARSNER, and Dr. FOOT. <i>Three hours daily during the forenoons of October, November, December (first week only), and January.</i>	252
Demonstrations and laboratory work. Professor T. SMITH. <i>Two hours daily, second and third weeks of December.</i>	24
Neuropathology. Professor SOUTHARD. <i>Afternoons in December.</i>	45
Surgical Pathology. Assistant Professor NICHOLS. <i>Afternoons in January.</i>	60

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

THEOBALD SMITH, M.D., LL.D., S.D., *George Fabyan Professor of Comparative Pathology.*

MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology.*
— — —, *Assistant in Medical Zoölogy.*

J. HOWARD BROWN, S.M., *Austin Teaching Fellow in Comparative Pathology.*

Second Year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures. Professor T. SMITH. (H.M.S.) *One hour daily, second and third weeks of January.* 12

Demonstrations and laboratory work. Professor T. SMITH, Assistant Professor TYZZER, and Dr. FABYAN. *Two hours daily, second and third weeks in December.* 24

Neuropathology

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

SAMUEL T. ORTON, M.D., *Instructor in Neuropathology.*

F. ROBERTSON SIMS, M.D., *Assistant in Neuropathology.*

JAMES B. AYER, M.D., *Assistant in Neuropathology.*

Second Year. — The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the pathological physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 57.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures.	Professor SOUTHARD and assistants.	<i>Afternoons in December.</i>	12
Laboratory work.	Professor SOUTHARD and assistants.	<i>Two hours daily, afternoons in December.</i>	24
Written and practical tests.	Professor SOUTHARD and assistants.	<i>Afternoons in December.</i>	9
Demonstrations at State institutions, voluntary.	Special.		

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene.*

LEWIS W. HACKETT, M.D., *Assistant in Preventive Medicine and Hygiene.*

FREDERICK M. ALLEN, M.D., *Charles Follen Folsom Teaching Fellow in Hygiene.*

Second Year. — The instruction consists of lectures and demonstrations.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 57.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor ROSENAU and assistants. *Three times a week, second half-year.* 48

Materia Medica and Therapeutics

FRANZ PFAFF, M.D., *Professor of Pharmacology and Therapeutics.*

Second and Third Years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological action of drugs, and their practical value as remedies.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Pharmacology lectures. Professor PFAFF. *Twice a week, February to May inclusive.* 32

Materia Medica lectures. —. *Once a week, February to May inclusive.* 16

Optional course in practical pharmacy. —. *Two hours once a week during April and May.*

THIRD YEAR

HOURS

Lectures on Therapeutics. Professor PFAFF. *Once a week, first half-year.* 16

Recitation in Pharmacology and Therapeutics. —. *Once a week, first half-year.*

Medicine

The Department of Medicine is composed of the sub-departments of the Theory and Practice of Physic and Clinical Medicine.

GEORGE G. SEARS, M.D., *Clinical Professor of Medicine.*

DAVID L. EDSALL, M.D., *Jackson Professor of Clinical Medicine.*

HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

RICHARD C. CABOT, M.D., *Assistant Professor of Clinical Medicine.*

ELLIOTT P. JOSLIN, M.D., *Assistant Professor of the Theory and Practice of Physic.*

HERMAN F. VICKERY, M.D., *Instructor in Clinical Medicine.*

WILLIAM H. SMITH, M.D., *Instructor in Clinical Medicine.*

ARTHUR K. STONE, M.D., *Instructor in the Theory and Practice of Physic.*

HENRY F. HEWES, M.D., *Instructor in the Theory and Practice of Physic.*

FRANKLIN W. WHITE, M.D., *Instructor in Clinical Medicine.*

WILLIAM H. ROBESY, JR., M.D., *Instructor in Clinical Medicine.*

GEORGE S. C. BADGER, M.D., *Instructor in the Theory and Practice of Physic.*

JOSEPH H. PRATT, M.D., *Instructor in the Theory and Practice of Physic.*

EDWIN A. LOCKE, M.D., *Instructor in Clinical Medicine.*

FREDERICK T. LORD, M.D., *Instructor in Clinical Medicine.*

THOMAS F. LEEN, M.D., *Assistant in the Theory and Practice of Physic.*

FRANCIS W. PALFREY, M.D., *Assistant in the Theory and Practice of Physic.*

WILLIAM B. ROBBINS, M.D., *Assistant in the Theory and Practice of Physic.*

GERALD BLAKE, M.D., *Assistant in Clinical Medicine.*

CHARLES L. OVERLANDER, M.D., *Assistant in the Theory and Practice of Physic.*

G. CHEEVER SHATTUCK, M.D., *Assistant in Clinical Medicine.*

CHANNING FROTHINGHAM, JR., M.D., *Assistant in the Theory and Practice of Physic.*

ROGER I. LEE, M.D., *Assistant in the Theory and Practice of Physic.*

CHARLES H. LAWRENCE, JR., M.D., *Alumni Assistant in Clinical Medicine.*

LOUIS H. NEWBURGH, M.D., *Alumni Assistant in the Theory and Practice of Physic.*

WALTER W. PALMER, M.D., *Henry P. Walcott Fellow in Clinical Medicine.*

THE THEORY AND PRACTICE OF PHYSIC

The instruction given by the Sub-Department of the Theory and Practice of Physic consists of both clinical and laboratory work. The clinical work is given by means of lectures, clinical lectures and clinical exercises at the Massachusetts General Hospital, the Boston City Hospital, the Carney Hospital, or the House of the Good Samaritan. The laboratory work is given at the Harvard Medical School in the laboratory of the Sub-Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research. Both kinds of work are offered to both undergraduate and graduate students.

Second and Third Years.—*Lectures.* Lectures on selected topics are given at the Medical School.

Clinical Lectures.—Clinical lectures in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Clinical Exercises.—Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 58.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

	HOURS
Lectures on selected topics. Professor CHRISTIAN. (H.M.S.) <i>a week, second half-year.</i>	Twice 32
Clinical lectures. Dr. BADGER. (M.G.H.) <i>a week.</i>	Once a week, second half- 16
Exercises in sections. Asst. Professor JOSLIN (B.C.H.), Drs. BADGER and PALFREY (M.G.H.), STONE and LEE (M.G.H. and S.H.). <i>a week, second half-year, for each student.</i>	Twice 48
Laboratory exercises. Dr. HEWES, assisted by Drs. OVERLANDER, ROBBINS, and ——. <i>Five times a week, second half-year.</i>	160

THIRD YEAR		HOURS
Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, first half-year.</i>	32
Clinical lectures. Dr. PRATT. (M.G.H.)	<i>Once a week, first half-year; once a week, second half-year.</i>	32
Clinical lectures. Dr. HEWES. (M.G.H.)	<i>Once a week, first half-year.</i>	16
Clinical lectures. Drs. STONE, LORD, or LEE. (M.G.H.)	<i>Once a week, first half-year.</i>	16
Exercises in sections. Drs. STONE and LEE. (M.G.H. and S.H.)	<i>First half-year. Twelve exercises for each student.</i>	18

CLINICAL MEDICINE

The instruction in the Sub-Department of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second Year.—The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week. Credit is given for the character of the work done in this course on the basis of twenty-five per cent of the total mark in Clinical Medicine.

Clinical instruction for the entire class, twice a week, in diagnostic methods, diagnosis, and treatment.

Third Year.—Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections, in the ward and out-patient departments. Each student attends thirty-two exercises during the year.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 58.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Clinics. Professor EDSALL (M.G.H.) and Clinical Professor SEARS (B.C.H.). *Twice a week, second half-year.* 32

Physical Diagnosis. Drs. LORD and G. CHEEVER SHATTUCK (M.G.H.) and Dr. PALFREY (B.C.H.). *Two exercises a week, second half-year, for each student.* 48

THIRD YEAR

Clinics. Professor EDSALL. (M.G.H.) *Twice a week, first half-year; once a week, second half-year.* 48

Clinical Professor SEARS. (B.C.H.) *Twice a week, first half-year; once a week, second half-year.* 48

Drs. ROBEY, WHITE, or LOCKE. (B.C.H.) *Twice a week, second half-year.* 32

Section work. Professor EDSALL and Clinical Professor SEARS, Assistant Professor CABOT, Drs. VICKERY, ROBEY, WHITE, SMITH, and LOCKE. *Thirty-two exercises for each student throughout the year.* 48

Tropical Medicine

THEOBALD SMITH, M.D., *George Fabyan Professor of Comparative Pathology*, will supervise the instruction in Tropical Medicine. Courses which are intimately related to this field of medicine will be found under Pathology, Bacteriology, and Clinical Medicine.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 60.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Pediatrics

THOMAS MORGAN ROTCH, M.D., *Professor of Pediatrics.*

JOHN H. MCCOLLOM, M.D., S.M., *Professor of Contagious Diseases.*

JOHN L. MORSE, M.D., *Associate Professor of Pediatrics.*

MAYNARD LADD, M.D., *Instructor in Pediatrics.*

CHARLES H. DUNN, M.D., *Instructor in Pediatrics.*

HENRY I. BOWDITCH, M.D., *Clinical Instructor in Pediatrics.*

WILLIAM P. LUCAS, M.D., *Clinical Instructor in Pediatrics.*

EDWIN H. PLACE, M.D., *Clinical Instructor in Pediatrics.*

FRITZ B. TALBOT, M.D., *Assistant in Pediatrics.*

PHILIP H. SYLVESTER, M.D., *Assistant in Pediatrics.*

RICHARD M. SMITH, M.D., *Assistant in Pediatrics.*

JAMES H. YOUNG, M.D., *Fellow in Pediatrics.*

HENRY F. KEEVER, M.D., *Fellow in Pediatrics.*

ARTHUR A. HOWARD, M.D., *Fellow in Pediatrics.*

Third Year.—The material for instruction is drawn from the Infants' Hospital, the Children's Hospital, the Massachusetts Babies' Hospital, the South Department of the Boston City Hospital, and from the Children's Departments of the Massachusetts General Hospital and the Boston Dispensary. Lectures are given on such selected topics as development, living anatomy, the dietetics of early life, diphtheria, the exanthemata, and the gastro-enteric diseases, preparatory for the clinical teaching. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital; and the students are required to take an active part in the examination and discussion of the cases. Sectional teaching at the bedside both at the Children's and Infants' Hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. By means of the very large amount of Pediatric material in the contagious wards, the general subject of Pediatrics as connected with contagious diseases is especially explained and illustrated. Exercises in case teaching are given in the latter part of the year preparatory for the examination. At the Children's Hospital the students are given instruction in lumbar puncture and in the serum examinations and other diagnostic methods. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

THIRD YEAR

HOURS

Lectures. Professor ROTCH. (H.M.S.)	<i>Once a week, October 3 to December 19; January 2 to 23; January 28 to February 25; March 18 and 25.</i>	23
Associate Professor MORSE. (H.M.S.)	<i>Once a week, February 3 to March 24.</i>	8
Associate Professor MORSE. (Infants' Hospital.)	<i>Once a week, March 14 to 28. (H.M.S.)</i>	7
	<i>Twice a week, May 5 to 13.</i>	2
Dr. PLACE. (H.M.S.)	<i>March 4 and 11.</i>	2
Dr. LADD. (H.M.S.)	<i>March 31 and April 1.</i>	2
Dr. DUNN. (H.M.S.)	<i>April 21 and 22.</i>	2

Clinical lectures. Professor ROTCH. (Ch.H.)	Once a week, October 4 to January 24.	15
Professor McCOLLOM. (S.D.B.C.H.)	October, November, December.	8
Associate Professor MORSE. (Infants' Hospital.)	Once a week, January 24 to March 7.	7
Case Teaching. Dr. LADD. (H.M.S.)	April 7 and 8.	2
Dr. DUNN. (H.M.S.)	April 28 and 29.	2
Section Teaching. Dr. PLACE. (S.D.B.C.H.)	First half-year. Six exercises for each student.	9
DRS. LADD, DUNN, BOWDITCH, LUCAS, SYLVESTER, YOUNG, HOWARD, and KEEVER. (Ch.H. and I.H.)	Each student attends twenty-one exercises during the year.	31½

Roentgen Ray

WALTER J. DODD, M.D., *Instructor in the Use of the Roentgen Ray.*
 SAMUEL W. ELLSWORTH, M.D., *Assistant in the Use of the Roentgen Ray.*
 PERCY BROWN, M.D., *Assistant in the Use of the Roentgen Ray.*
 ARIAL W. GEORGE, M.D., *Assistant in the Use of the Roentgen Ray.*

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department. Arrangements can be made for such instruction with the Instructor in the Use of the Roentgen Ray.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 61.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Surgery

The Department of Surgery is composed of the sub-departments of surgery, clinical surgery, operative surgery, surgical pathology, and genito-urinary surgery.

— — —, *Moseley Professor of Surgery.*

HARVEY CUSHING, M.D., *Professor of Surgery.*

PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery.*

EDWARD H. NICHOLS, M.D., *Assistant Professor of Surgical Pathology and Assistant Professor of Surgery.*

CHARLES A. PORTER, M.D., *Assistant Professor of Surgery.*

J. BAPST BLAKE, M.D., *Assistant Professor of Surgery.*

ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery.*

HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery.*

HUGH CABOT, M.D., *Instructor in Genito-Urinary Surgery.*
 WILLIAM E. FAULKNER, M.D., *Instructor in Surgery.*
 JAMES S. STONE, M.D., *Instructor in Surgery.*
 SAMUEL J. MIXTER, M.D., *Lecturer on Surgery.*
 GEORGE H. MONKS, M.D., M.R.C.S., *Lecturer on Surgery.*
 FRANCIS B. HARRINGTON, M.D., *Lecturer on Surgery.*
 CHARLES L. SCUDDER, M.D., *Lecturer on Surgery.*
 JAMES G. MUMFORD, M.D., *Lecturer on Surgery.*
 FRED B. LUND, M.D., *Lecturer on Surgery.*
 FREEMAN ALLEN, M.D., *Lecturer on Anaesthesia.*
 ERNEST A. CODMAN, M.D., *Assistant in Surgery.*
 JOSHUA C. HUBBARD, M.D., *Assistant in Surgery.*
 DANIEL F. JONES, M.D., *Assistant in Surgery.*
 LE ROI G. CRANDON, M.D., *Assistant in Surgery.*
 WALTER C. HOWE, M.D., *Assistant in Surgery.*
 CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*
 HORACE BINNEY, M.D., *Assistant in Genito-Urinary Surgery.*
 BETH VINCENT, M.D., *Assistant in Surgery.*
 JOHN HOMANS, M.D., *Assistant in Surgery.*
 J. DELLINGER BARNEY, M.D., *Assistant in Genito-Urinary Surgery.*
 ROBERT M. GREEN, M.D., *Fellow in Surgery.*
 WILLIAM J. BRICKLEY, M.D., *Fellow in Surgery.*
 LEWIS H. WEED, M.D., *Fellow in Charge of the Laboratory of Surgical Research.*

HALSEY B. LODER, M.D., *Austin Teaching Fellow in Surgery.*

Instruction is given by systematic lectures, demonstrations, recitations, and clinical lectures, and by section teaching in the wards and out-patient departments of the hospitals, and in the laboratories.

Second and Third Years.—A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technique; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illus-

trated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. As early as may be in the second half of the second year, the course in surgical technique is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technique the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. All the students will be assigned to serve one month during the year beginning June 1, at one or other of these hospitals. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals, and also receives instruction in anesthesia. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in genito-urinary surgery is given in the second half of the third year, consisting of sixteen lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 62.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Laboratory course in Surgical Pathology. Assistant Professor NICHOLS. (H.M.S.) <i>Twenty three-hour exercises during January.</i> (See Pathology.)	60
Clinical lectures in connection with the above course. Assistant Professor NICHOLS. (B.C.H.) <i>Twelve exercises during January.</i>	12
Laboratory course in Surgical Technique. Assistant Professor LOTHROP. <i>Six lectures to the entire class.</i>	6
<i>Twelve two-hour exercises for each student during second half of second year.</i>	24
Systematic lectures, demonstrations, and recitations. Professor CUSHING, Assistant Professors NICHOLS, PORTER, J. B. BLAKE, LOTHROP, and GREENOUGH. (H.M.S.) <i>Four times a week.</i>	64

Clinical demonstrations in connection with the above lectures. Professor CUSHING, and Assistant Professor PORTER (M.G.H.), and Assistant Professors J. B. BLAKE and LOTHROP (B.C.H.). *Four times a week.* 64

THIRD YEAR

Systematic lectures, demonstrations, and recitations. Professor CUSHING, Assistant Professors PORTER, J. B. BLAKE, GREENOUGH, and LOTHROP. (H.M.S.) *Three times a week, first half-year.* 48

Clinical demonstrations in connection with above lectures. Assistant Professor PORTER (M.G.H.), and Assistant Professors NICHOLS and J. B. BLAKE (B.C.H.). *Twice a week, first half-year.* 32

Clinical lectures. Assistant Professor C. A. PORTER. (M.G.H.) *Once a week, second half-year.* 16

Assistant Professors NICHOLS and J. B. BLAKE. (B.C.H.) *Once a week, second half-year.* 16

Clinical exercises in surgical wards in sections. Assistant Professor LOTHROP, and Drs. HARRINGTON, CODMAN, LUND, and CRANDON. *Each student attends sixteen exercises, first half-year.* 24

Clinical Lectures. Genito-Urinary Surgery. Assistant Professor PAUL THORNDIKE. (B.C.H.) *Once a week, second half-year.* 16

Section teaching at the Hospitals. Genito-Urinary Surgery. *Each student attends six exercises, second half-year.* 9

Case teaching. Assistant Professor J. B. BLAKE. (H.M.S.) *Once a week, beginning February 1.* 16

Orthopedics

ROBERT W. LOVETT, M.D., *Assistant Professor of Orthopedic Surgery.*

ELLIOTT G. BRACKETT, M.D., *Instructor in Orthopedics.*

AUGUSTUS THORNDIKE, M.D., *Instructor in Orthopedics.*

ROBERT SOUTTER, M.D., *Assistant in Orthopedics.*

ROBERT B. OSGOOD, M.D., *Assistant in Orthopedics.*

Third Year.—Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachusetts General Hospitals.

Fourth Year.—For a description of the fourth-year courses offered by this department, see page 66.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Assistant Professor LOVETT, and Drs. BRACKETT, A. THORNDIKE, SOUTTER, and OSGOOD. (H. M. S. and Ch. H.) *Three times a week, December and January.*

20

Obstetrics and Gynaecology

CHARLES M. GREEN, M.D., *Professor of Obstetrics and Gynaecology.*

WILLIAM P. GRAVES, M.D., *Professor of Gynaecology.*

FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology.*

MALCOLM STORER, M.D., *Instructor in Gynaecology.*

ERNEST B. YOUNG, M.D., *Instructor in Gynaecology.*

HOWARD T. SWAIN, M.D., *Instructor in Obstetrics.*

JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*

NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*

ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*

ROBERT M. GREEN, M.D., *Assistant in Obstetrics and Gynaecology.*

DONALD MACOMBER, M.D., *Alumni Assistant in Obstetrics.*

HENRY T. HUTCHINS, M.D., *Fellow in Gynaecology.*

OBSTETRICS

Third Year.—Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 66.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

Lectures on the Theory and Practice of Obstetrics. Professor GREEN. (H.M.S.) *Twice a week.*

64

Recitations. Assistant Professor NEWELL. (H.M.S.) *Once a week.*

32

Conferences. Dr. SWAIN. (H.M.S.) *Once a week.*

32

Practical instruction in Clinical Obstetrics. Drs. SWAIN, TORBERT, MASON, DENORMANDIE and MACOMBER. *Throughout the year.*

GYNAECOLOGY

Third Year. — Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 66.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

Lectures or recitations. Professors GREEN and GRAVES, Assistant Professor NEWELL, and Drs. STORER and YOUNG. (H.M.S.) *Twice a week, second half-year.* 32

Clinical exercises. Professor GRAVES (F.H. for W.), Dr. STORER (B.D.), and Drs. MASON and R. M. GREEN. (B.C.H.) *In sections, during the second half-year. Each student attends six exercises.* 9

Dermatology and Syphilis

ABNER POST, M.D., *Professor of Syphilis.*

CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology.*

C. MORTON SMITH, M.D., *Instructor in Syphilis.*

FREDERICK S. BURNS, M.D., *Instructor in Dermatology.*

E. LAWRENCE OLIVER, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year. — A course of clinical lectures, clinical exercises, and half-hour examinations and quizzes extending throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 67.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

Lectures on the Anatomy and Therapeutics of the Skin. (Illustrated.) Assistant Professor WHITE. (H.M.S. and M.G.H.) 4

Clinical lectures. Assistant Professor WHITE. (M.G.H.) *Once a week, first part of the year.* 17

Clinical exercises. Assistant Professor WHITE. (M.G.H.)	<i>Once a week, latter part of the year.</i>	12
Section work (clinical exercises). Drs. BURNS and OLIVER. (M.G.H.)	<i>Each student attends eight exercises; second half-year.</i>	16
Half-hour examinations and quizzes. Assistant Professor WHITE, and Drs. BURNS and OLIVER.	<i>Once a month throughout the year.</i>	9

SYPHILIS

Third Year. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR

Lectures. Professor POST. (H.M.S.)	<i>Once a week, December and January.</i>	8
Clinical lectures. Professor POST and Dr. SMITH. (B.D.)	<i>Once a week, April and May.</i>	8
Clinical exercises. Professor POST and Dr. SMITH. (B.D.)	<i>Each student attends six exercises, in sections, second half-year</i>	9

Neurology and Psychiatry

EDWARD W. TAYLOR, M.D., *Assistant Professor of Neurology.*

PHILIP C. KNAPP, M.D., *Clinical Instructor in Diseases of the Nervous System.*

EDWARD COWLES, M.D., LL.D., *Instructor in Mental Diseases.*

GEORGE A. WATERMAN, M.D., *Instructor in Neurology.*

HERMAN M. ADLER, M.D., *Instructor in Mental Diseases.*

GEORGE T. TUTTLE, M.D., *Clinical Instructor in Mental Diseases.*

JAMES B. AYER, M.D., *Assistant in Neurology.*

NEUROLOGY

Second Year. — In the afternoons during December, Professor SOUTHARD gives a course of twelve lectures, twelve laboratory exercises, and three tests consisting of written and practical work. The lectures form an introduction to the course in neurology and psychiatry; they precede and are directly related with the laboratory work which takes up the histology of the infections and the classical degenerations of the nervous system, as well as a brief outline of the pathology of the cerebral cortex. The histology is brought into close relation with the reflexes and other simple clinical signs. A demonstration of these reflexes and signs with their structural correlations is given at the Psychopathic and other State Hospitals.

An optional course, entitled *The Applications of Psychology to Neurology*, is offered in the course of this year.

Third Year.—During the first half-year one exercise a week and during the second half-year two exercises a week are given at the Massachusetts General Hospital. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards. (d) Short examinations and conferences at intervals during the year. The first half-year is devoted particularly to the study of symptoms in their clinical and anatomical relations (Assistant Professor TAYLOR); the second half-year, to morbid entities, including the functional neuro-psychoses. Dr. JAMES J. PUTNAM will give a series of lectures in the spring term on the Principles and Practice of Psycho Analysis.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 68.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures. Professor SOUTHARD. <i>One hour daily, afternoons in December.</i> (See Neuropathology.)	12
Laboratory work. Professor SOUTHARD. <i>Two hours daily, afternoons in December.</i> (See Neuropathology.)	24
Written and practical tests. Professor SOUTHARD. <i>Afternoons in December.</i> (See Neuropathology.)	9

THIRD YEAR

Lectures, Demonstrations, and Clinical exercises. Assistant Professor TAYLOR and Dr. WATERMAN. (M.G.H.) <i>Once a week, first half-year; twice a week, second half-year.</i>	48
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PSYCHIATRY

Third Year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Psychopathic Hospital.

THIRD YEAR.

Lectures. Dr. ADLER. (H.M.S.) <i>Once a week, second half-year.</i>	16
Clinical exercises. Dr. ADLER. (P.H.) <i>At stated intervals.</i>	3-4

Ophthalmology

- MYLES STANDISH, M.D., S.D., *Williams Professor of Ophthalmology.*
 ALEXANDER QUACKENBOSS, M.D., *Instructor in Ophthalmology.*
 HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*
 EDMUND W. CLAP, M.D., *Instructor in Ophthalmology.*
 FRED M. SPALDING, M.D., *Instructor in Ophthalmology.*
 WILLIAM N. SOUTER, M.D., *Fellow in Ophthalmology.*

Third Year. — Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 69.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

- Lectures. Professor STANDISH. (H.M.S.) *Twice a week, in October and November.* 16
 Clinical exercises. Drs. QUACKENBOSS, HASKELL, CLAP, and SPALDING. (E. and E.I.) *In sections, first half-year. Twelve exercises for each student.* 18

Otology

18

- CLARENCE J. BLAKE, M.D., *Walter Augustus Lecompte Professor of Otology.*
 EUGENE A. CROCKETT, M.D., *Instructor in Otology.*
 PHILIP HAMMOND, M.D., *Instructor in Otology.*
 WILLIAM F. KNOWLES, M.D., *Assistant in Otology.*
 ALFRED M. AMADON, M.D., *Assistant in Otology.*
 DAVID H. WALKER, M.D., *Assistant in Otology.*
 CALVIN B. FAUNCE, Jr., M.D., *Assistant in Otology.*

Third Year. — Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 69.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

- Lectures. Professor BLAKE. (H.M.S.) *Twice a week, February and March; once a week, April and May.* 24
 Clinical exercises. (E. and E.I.) *Every student attends six exercises, second half-year.* 9

Laryngology and Rhinology

ALGERNON COOLIDGE, Jr., M.D., *Professor of Laryngology.*

J. PAYSON CLARK, M.D., *Instructor in Laryngology.*

FREDERIC C. COBB, M.D., *Instructor in Laryngology.*

JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*

ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology.*

HARRIS P. MOSHER, M.D., *Instructor in Laryngology.*

HARRY A. BARNES, M.D., *Assistant in Laryngology.*

GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*

D. CROSBY GREENE, Jr., M.D., *Fellow in Laryngology.*

Third Year. — Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has twenty-four lectures during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 70.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

Lectures. Professor COOLIDGE, assisted by Drs. GOODALE, MOSHER, and WRIGHT. (H.M.S.) *Once a week, February and March: twice a week, April and May.* 24

Clinical exercises. Professor COOLIDGE, and Drs. CLARK, BARNES, (M.G.H.), COFFIN (B.C.H.), and COBB (B.D.). *In sections, second half-year. Twelve exercises for each student.* 12

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses and quarter-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before June 1. *No changes in electives will be allowed after the final assignments are made:*

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

A practical examination shall be given by each department. The student's credit may be based on his daily written record of work, and in part on his practical examination at the end of his course. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

ANATOMY.

[*Under this Heading are included the Courses in Anatomy, Comparative Anatomy, Embryology and Histology.*]

Anatomy I. Half-courses, afternoons, October and November, February and March.

This is a course in general, applied and surgical anatomy designed to emphasize and explain such parts of general anatomy as are of practical importance. Less important details are studied briefly or omitted altogether, according to their deserts, but ample opportunity is given to the student who desires it to review the chief facts of general anatomy or to pay especial attention to regions in which he is interested.

Instruction is by demonstrations, dissection, the study of frozen sections, and specimens and informal quizzes. The greatest importance is attached to the verification by the student in his own dissection of the facts presented by the instructor.

To enable the course to be satisfactorily adjusted to courses in other departments, a limited number of students may be permitted, on consultation with the instructor, to take one month with the first section and the other month with the second section.

N. B. — No one can take this course who has not passed his first-year anatomy.

Anatomy 2. Embryology. Half-courses, mornings, afternoons, or all day, second half-year. Assistant Professor LEWIS.

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

In this course sixteen hours per week (at times chosen by the student) are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction will be required.

The *Manual of Human Embryology*, edited by Keibel and Mall, will be used as a text-book and original publications will be consulted. At the discretion of the instructor students may have access to the extensive embryological collection and to the collection of models, many of which were made in this laboratory.

Anatomy 3. Histology. Assistant Professor BREMER. Half-course, second half-year, at hours to be arranged with the instructor.

In this course students will be required to master the principal technical methods used in histology, and to study the differences, developmental and structural, in the various organs of the animals chiefly used in experimental medicine and animal economics. Special groups of organs may be chosen by the student for examination.

Anatomy 4. Half-course, afternoons, 4-6, October and November. Structure and development of the eye, ear, and nasopharynx.

Anatomy 5. Half-course, afternoons, 4-6, October and November. Structure and development of the urogenital system.

Anatomy 6. Half-course, afternoons, 4-6, December and January. Development and histology of the nervous system.

Anatomy 7. Comparative Anatomy. Half-course, second half-year, at hours to be arranged with the instructor. Professor MINOT.

PHYSIOLOGY.

Physiology 1. Half-courses, forenoons, afternoons, or all day, first half-year; afternoons, second half-year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, the ear, and the upper respiratory tract. Afternoons, except Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of five kinds, including (a) instruction in methods of diagnosis depending upon bacteriological procedures; (b) instruction in methods of bacteriological diagnosis in use in health board laboratories, including the examination of waters and soils; (c) instruction in methods of opsonic-index work, with practical application; (d) special studies of spirochaetes and trypanosomes (open during both the first and second half-years, but should be taken for at least two months); (e) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

Note: Students are advised not to take all-day courses in this subject.

PATHOLOGY.

Pathology 1. Half courses, all day, throughout the year.

Two students in the fourth year will be received in the State Infirmary at Tewksbury each month as residents. They will live in the hospital, and they will assist in all of the pathological work, receiving practical instruction in the technique pertaining to it, and will also have opportunities for the study of patients in the wards, thereby bringing the clinical course of disease and the pathological changes into close relation. Students may be received into the Danvers State Hospital for the Insane under the same conditions, with the consent of the Superintendent.

Pathology 2. Associate Professor F. B. MALLORY. Half-courses, all day, preferably second half-year.

This course is given in the pathological laboratory of the Boston City Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Pathology 3. Assistant Professor J. H. WRIGHT. Half-courses, all day, second half-year.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Each course is limited to four men.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic charac-

ters of the microörganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Medical Zoölogy. Half-course, afternoons, April and May.

This course consists of laboratory exercises and lectures on the various groups of protozoan and higher animal parasites and on insects and arachnids as carriers of infection. Qualified students may choose some special subject for detailed study. Class limited to ten students.

Comparative Pathology 3. Research. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

NEUROPATHOLOGY.

Neuropathology 1. Half-courses, forenoons, afternoons, or all day, throughout the year, preferably the second half-year.

The case-method is followed. The report of a selected case will be worked up by the student (as if for publication), based upon the personal employment of approved neuropathological methods.

Limited to two during a given month. Consultation with the instructor in advance will secure the choice of a case in line with the student's later special work.

Neuropathology 2. Half-courses, forenoons, afternoons, or all day throughout the year.

Clinico-pathological methods in neurology and psychiatry and allied problems of internal medicine and surgery. Students taking this course may, with the consent of the authorities, serve as clinical clerks or laboratory externes in the Psychopathic Hospital or, under special conditions, in other State institutions. Students will be permitted to attend staff-conferences at the institutions where their work is carried on. They may be required to submit reports or theses concerning observations made.

The clerkships and externships are limited to two in a given month. The instructor should be consulted in advance.

PREVENTIVE MEDICINE AND HYGIENE.

Preventive Medicine and Hygiene 1. Half-course, afternoons, second half-year.

This course will consist in laboratory instruction, sanitary excursions, and, in part, of special research. The laboratory instruction will comprise analysis of air, soils, water, adulterations of foods, milk, and its relation to the public health, investigations of disinfectants, studies in immunity, vaccination, the transmission of the communicable diseases and epidemiology.

Each course limited to ten men. Students must see the instructor in charge before enrolling in this course.

THERAPEUTICS.

Experimental Pharmacology. Half-course, afternoons, December and January.

This is a laboratory course, and will consist of a series of experiments demonstrating the actions of the more important drugs upon the lower animals and will include a consideration of the therapeutic uses of the drugs studied. Adequate facilities will be provided for performing selected experiments, with the end in view of studying the effects of drugs on the circulation, respiration, gastro-intestinal tract, kidneys, etc. The students taking this course will be expected to preserve their records in a suitable laboratory book and make careful notes of their deductions from the experiments performed. Quizzes will be frequently held on the pharmacology and therapeutics of the drugs studied and some practice in prescription writing given. This course will be given in the pharmacological laboratory of the Harvard Medical School.

MEDICINE.

Fourth-Year Elective Courses in Medicine will be offered under the joint supervision of the Departments of the Theory and Practice of Physic and of Clinical Medicine as follows:

Medicine I. Half-courses, all day, throughout the year.

Instruction in clinical medicine will be given during the fourth year as follows:

1. OUT-PATIENT WORK.
2. WARD WORK.
3. TUBERCULOSIS.
4. CLINICO-PATHOLOGY.
5. PRACTICAL THERAPEUTICS.
6. DISEASES OF METABOLISM.

1. Each student will be assigned to an out-patient clinic, either at the Boston City or the Massachusetts General Hospital, where he will act as assistant to the physician on duty. In this clinic he will spend each morning from 9 to 1 or until he has finished the work allotted to him.

His work will be under the supervision of a member of the department, who will demonstrate selected cases, from the clinic, daily.

2. Each student will be assigned to a section, which will meet on one afternoon in the week in the west medical wards of the Massachusetts General Hospital, and will go on another afternoon to the Long Island Hospital. Cases will be assigned for study, and reports will be required from time to time. A member of the department will be present at these exercises to assist in the study of cases.

3. One afternoon each week will be spent in the study of Tuberculosis. Sections will be taken by Dr. E. A. LOCKE to the Municipal Hospital, Mattapan.

4. One exercise in Clinico-pathology will be given each week by a member of the department, conjointly with a member of the Pathological Department, in which the clinical history and examination of the case will be compared with the autopsy findings.

5. One hour each week will be devoted to Practical Therapeutics. The various methods used in treatment of disease will be illustrated in the west medical wards.

6. One afternoon each week will be devoted to the study of Diseases of Metabolism under Dr. FRANKLIN W. WHITE at the Boston City Hospital.

Students will be marked upon four written cases, two each from their out-patient and ward work. Each case will be marked on a scale of 20 per cent. A mark on the scale of 20 per cent will be given upon the tuberculosis work.

TABULAR VIEW

HOOR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
A.M.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.	O.P.D. at B.C.H. or at M.G.H.
9-1						
P.M.	Medical Wards at M.G.H. or ward visit at Long Island.	Tubercu- losis exercise, Municipal Hospital, Mattapan.	Metabolic diseases, Boston City Hospital.	Medical Wards at M.G.H. or ward visit at Long Island.	Practical Therapeutics, Medical Wards, at M.G.H. Clinico- pathology, Autopsy- room, M.G.H.	
3-5						

Medicine 2. Quarter-courses, forenoons, throughout the year.*

This work will be given at the Carney Hospital. Each quarter-course is limited to four students. During the forenoons two students will alternate between the medical wards and the Out-patient Department of the Carney Hospital. The work will consist in a consecutive study of ambulatory and ward patients with application of appropriate laboratory methods. There will be also special opportunity for the medical observation of surgical cases before and after operation. These courses will be given under the supervision of Dr. LEEN.

Medicine 3. Half-courses, all day, throughout the year.

These courses will consist of research in the laboratory of the Department of Theory and Practice, and will be given under the direction of Dr. J. H. PRATT, with whom special arrangements for the course must be made in advance.

Medicine 4. Half-courses, afternoons, or all day, throughout the year.

These courses will consist of research in the laboratory of the Department of Theory and Practice, to be given under the direction of Dr. CHANNING FROTHINGHAM, Jr., with whom special arrangements for the course must be made in advance. This work will consist of investigation by means of animal experimentation and the study of pathological changes produced in various ways.

Medicine 5. Half-courses, forenoons, or all day, beginning October 1st.†

These courses will be given at the Massachusetts General Hospital and in the laboratory of the Department of Theory and Practice at the Medical School, and will consist of instruction in special methods of study of clinical cases, and practice in the application of these methods of clinical investigation to hospital patients. The methods which will be studied are chiefly those of chemical clinical investigation. These courses will be given under the direction of Dr. H. F. HEWES, with whom special arrangements for the course must be made in advance.

TROPICAL MEDICINE.

A course in Medical Zoölogy may be found under Comparative Pathology 2.

A course in Protozoölogy may be arranged under Pathology.

Courses in the Bacteriology of Tropical Diseases may be obtained by special arrangement.

* These courses will be repeated only the number of months required to accommodate the applicants at the rate of four per month.

† Students taking these courses may continue their work during other months of the first half-year, but no student may begin these courses later than October 1st.

ROENTGEN RAY.

Roentgen Ray 1. Half-courses, all day, throughout the year.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 9 A.M. to 12 M. at the Massachusetts General Hospital and Carney Hospital, Drs. WALTER J. DODD and PERCY BROWN. Afternoons from 3 to 5 P.M. at the Children's Hospital, Dr. ARIAL W. GEORGE.

Roentgen Ray 2. Quarter-courses, mornings, throughout the year.

This course is practically the same as that given in the mornings in the above course.

PEDIATRICS.

Pediatrics 1. Half-courses, all day, throughout the year.

The work will consist of instruction in the wards and out-patient departments of the Children's Hospital, of the Infants' Hospital, of the Children's Department of the Massachusetts General Hospital, in the contagious wards of the South Department of the Boston City Hospital, at the Children's Tubercular clinic of the Burroughs Place Dispensary, at the Massachusetts Babies' Hospital, and in the Children's wards and out-patient department of the Boston Dispensary. The students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be taken up with teaching in the various wards and out-patient departments. There will be given two lectures on the significance of the ear in early life by Dr. CROCKETT in the wards of the Infants' Hospital. Especial instruction will be given at the Massachusetts Babies' Hospital in the examination and preparation of milk modifications in connection with substitute feeding, and here instruction will also be given in connection with the subject of wet nurses.

Four hours in each week will be spent at the South Department. Here instruction in general Pediatrics as connected with contagious diseases will be demonstrated and whenever possible the technique of intubation will be shown.

Each student will have assigned to him a case in the wards of the Children's Hospital for the purpose of making a study of that especial disease. Each student will also have cases assigned to him on two afternoons of each week, when in the early part of the afternoon instruction in physical examination will be given by the various instructors and in the latter part of the afternoon these cases will be discussed with one of the senior members of the Department. Instruction will also be given in the laboratory of the Children's Hospital in clinical work connected with lumbar puncture and with the examination of the spinal fluid, blood and urine.

Dr. GEORGE will give practical instruction by means of Roentgen plates in the normal development of early life and in the more important diseased conditions. The class will be taken to a model farm, where everything practical pertaining to the milk supply for infants and young children will be taught. In connection with this, practical instruction will be given in a research milk laboratory in the writing of prescriptions and in the routine of laboratory work.

The examination for the degree will be an oral one, held by the Professor of Pediatrics.

SURGERY.

The electives offered by the Department of Surgery consist of half-courses (occupying the whole day for one month or the mornings of two months) and quarter-courses (either mornings or afternoons for one month). They are so arranged that they may be themselves combined in different groups or taken in combination with quarter-courses offered by other departments. No student will be permitted to take more than four half-courses in surgery without special permission of the head of the department.

1	2	3	4	5	6	7	8	9
All day 1 month. B.C.H. Relief. Dresser. Practical Surgery. Oct. to May.	Forenoons 1 month. M.G.H. Observation. Oct. to May.	Forenoons. 1 month. B.C.H. Voluntary Assistant. Oct., Nov., Feb., Mar.		Forenoons. 1 month. B.C.H. G. U. Sur- gery. Thorndike Feb. to May.	Forenoons. 1 month. M.G.H. G. U. Sur- gery. Cabot. Oct. to Jan.	All day. 1 month. B.C.H. Labo- ratory Surgical Pathology. Nichols and Loder. Nov., Dec., Feb., Mar. 3 men only.	Afternoons. 1 month. Children's Hospital. Wards and O.P.D. Oct., Nov., Feb., Mar.	Forenoons. 2 months. M.G.H. Clinical Surgical Pathology. Oct. to May.
Half- course.	Quarter- course.	Quarter- course.	Quarter- course.	Quarter- course.	Quarter- course.	Half- course.	Quarter- course.	Half- course.

Surgery 1. Practical Work in Surgery. Half-courses, all day, for one month, throughout the year. Boston City Hospital and Relief Station.

The student will be assigned as a "dresser" and will be under the hospital administration. He will be given opportunity to take histories, make examinations and diagnoses, make dressings, assist at operations, and administer anesthesia. He will obtain abundant experience in traumatic surgery, fractures and emergency cases, and will follow the after-care and convalescence of such cases as come under his charge. He will receive instruction and will be examined from time to time in the performance of his duties by the instructor.

Surgery 2. Observation of Surgical Cases. Quarter-courses, forenoons, for one month, throughout the year. Massachusetts General Hospital.

The student will be given opportunity to study the surgical material of the hospital. Instruction will be given in case-taking, examination of patients, diagnosis, surgical treatment, and the after-care of surgical patients. Laboratory and X-ray methods of diagnosis will be demonstrated. Operations on cases previously examined by the class will be attended and the pathological material obtained from operations and autopsies will be studied. Collateral reading on surgical subjects will be required.

No student will be allowed to repeat this course except with the special permission of the head of the department.

Surgery 3. Quarter-course, forenoons, for one month, given in October, November, February, and March. Boston City Hospital.

The student will be assigned to the first surgical service of the Boston City Hospital as a "voluntary assistant" and will be under the hospital administration. He will be given practical work for two hours each morning in the wards and operating rooms, and the remaining time will be spent in the study or observation of special surgical cases or problems.

Surgery 4. Operative Surgery. Quarter-course, afternoons, for one month, December, January, April, and May. Dr. G. H. MONKS and assistants. Harvard Medical School, Laboratory of Operative Surgery and Laboratory of Surgical Research.

Instruction will be given by lecture and by demonstration on the cadaver in the classical and important operations and operative procedures, which will then be performed by the student under the supervision of the instructor. An extra charge will be made for material used in this course.

Surgery 5. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, February, March, April, and May. Assistant Professor PAUL THORNDIKE. Boston City Hospital.

Instruction will consist of ward work, taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases and seeing the end results. Conferences with the students will be held from time to time.

Surgery 6. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, October to January, inclusive. Dr. HUGH CABOT. Massachusetts General Hospital.

The student will be assigned as assistant in the clinic and will take part in the routine work, case-taking, examination of patients, diagnosis and treatment. Operations and the after-care of major operative cases will be followed in the wards. Instruction will be given in cystoscopy and in laboratory methods of diagnosis. (Courses 5 and 6 may be taken together as a half-course in Genito-Urinary Surgery.)

Surgery 7. Half-courses, all day except Saturdays and Sundays, for one month, November, December, February, and March. Assistant Professor E. H. NICHOLS and Dr. H. B. LODER. Boston City Hospital and Laboratory of Surgical Pathology.

This course will include ward visits, operations, etherization, microscopy and examination of pathological specimens from operations at the Boston City Hospital. The afternoons will be spent at the Laboratory of Surgical Pathology at the Harvard Medical School. The instruction will include experimental operations along pathological lines suggested by the instructors, with compilation of literature and interpretation of operative results. Limited to three men. Suitable students will be permitted to repeat the course. With the special permission of the instructor this course may be taken by three additional men as a quarter-course, occupying the afternoons of one month.

Surgery 8. Quarter-courses, afternoons, for one month, October, November, February, and March. Dr. JAMES S. STONE and assistants. Children's Hospital.

The general surgical diseases of children, fractures, infections, hernia, congenital malformations, etc. The student will be assigned cases in the surgical out-patient department and in the wards of the hospital for examination and diagnosis. Treatment will be discussed with the instructor. Opportunity will be given to qualified students to do practical work as dressers, Monday, Tuesday, Wednesday and Saturday afternoons in the out-patient department; Thursday and Friday afternoons the class will meet in the wards and operating rooms of the hospital.

Surgery 9. Clinical Surgical Pathology. Half-courses, forenoons, for two months, throughout the year. Dr. W. F. WHITNEY. Massachusetts General Hospital.

The course will be devoted to the study of pathological specimens from the surgical clinic, with especial reference to the use of the microscope in immediate diagnosis. Opportunity will be offered for the systematic study of some particular line of cases, both clinically and pathologically. The work will be supplemented with conferences and demonstrations in the Warren Museum. Each student will be expected to supply himself with a microscope.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Half-courses, afternoons, throughout the year.

The fourth-year elective course is planned to continue the third-year required course, and is suited to those who have had some acquaintance with orthopedic surgery. The exercises are clinical, combined with practical work in the out-patient orthopedic clinics and in the in-service of the Children's Hospital and in the in-service of the Massachusetts General Hospital. The instruction is given daily each afternoon in the week, and is so arranged that opportunities are given for the examination of cases, with systematic note taking, followed by instruction successively in symptoms, diagnosis, the principles and details of treatment, including instruction in the common operations of orthopedic surgery.

Each course limited to five men.

Orthopedic Surgery 2. Quarter-course, afternoons, October, December, February, and April.

Full courses are offered for those who desire and are qualified for more complete instruction. The large amount of clinical material under the direction of the department gives ample opportunity for study and investigation.

Each course limited to four men.

OBSTETRICS AND GYNAECOLOGY.

Obstetrics and Gynaecology 1. Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on

duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the first half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor GREEN (Oct. to Jan.) and Assistant Professor NEWELL (Feb. to May), assisted by Drs. YOUNG, MASON, and R. M. GREEN, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, and by Professor GRAVES, assisted by Dr. HUTCHINS, at the Free Hospital for Women, Brookline. These clinics afford ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be required to study, and report on, pathological specimens removed by operation, under the supervision of Professor MALLORY or Professor GRAVES.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

DERMATOLOGY AND SYPHILIS.

Dermatology and Syphilis 1. Half-courses, forenoons, October, November, December, and January.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique. Students electing Course 1 or 2 are strongly recommended to elect Course 3.

Dermatology and Syphilis 2. Quarter-courses, forenoons, October, November, December, and January.

The work in this course will be the same as in Course 1, with the exception that it extends over one month instead of two.

Dermatology and Syphilis 3. Quarter-courses, afternoons, in January or in February, but not in both months.

This course consists of microscopical work and is given on five afternoons at the Harvard Medical School. Students electing this course will be trained in microscopical technique and in the histological study of the commoner diseases of the skin.

NEUROLOGY AND PSYCHIATRY.

Neurology and Psychiatry 1. Half-courses, forenoons, throughout the year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows:—

- (1) Daily systematic conferences on neurological topics.
- (2) History-taking, and personal examination of patients at the out-patient departments of the Massachusetts General and Boston City Hospitals.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.
- (5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, *e. g.*, Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

The instruction in psychiatry will be as follows:—

- (1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.
- (2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff, at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.

- (3) Clinical instruction and demonstrations at the Boston State Hospital one forenoon in each week during October and November, for all electing

this course. Also an individual case will be assigned to be reported and discussed at the regular evening conference during the year.

The foregoing statement is subject to possible modifications.

OPHTHALMOLOGY.

Ophthalmology 1. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the methods of examination of the refraction of the eye and the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations, with opportunity to witness their exemplification in the operative work of the hospital.

Ophthalmology 2. Quarter-course, forenoons, in February.

This course will be devoted to instruction in the use of the ophthalmoscope.

OTOLOGY.

Otology 1. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to clinical instruction. Each course limited to three men.

Otology 2. Otoscopy and Diagnosis. Drs. D. H. WALKER and A. M. AMADON. Quarter-courses, forenoons, November, December, February or March.

This course will be given at the Massachusetts Charitable Eye and Ear Infirmary. The student will be instructed in the objective examination of the ear, in making hearing tests and in the determination of disturbances of equilibration. He will be given an opportunity to make diagnoses in a great variety of cases. Each course limited to three men.

Otology 3. Histology and Pathology of the Ear. Dr. A. M. AMADON. Quarter-course, mornings in January, for students who have taken either Course 1 or 2.

This course will be given at the Medical School. Instruction will consist of directed reading, illustrated by specimens, and in laboratory work

under the personal supervision of the instructor. Ability to read German is necessary. Each course limited to three men.

LARYNGOLOGY.

Laryngology 1. Quarter-courses, forenoons, throughout the year, except March. Massachusetts General Hospital.

These courses are chiefly clinical in character; but in addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Each course limited to four and preference will be given to men taking the course for two months.

Laryngology 2. Quarter-courses, mornings, second half-year.

This course is similar to Laryngology 1.

Laryngology 3. Pathology of the Nose and Throat. Drs. JOSEPH L. GOODALE and HARRY A. BARNES. Quarter-course given in March. Daily, afternoons, except Saturdays, in the Pathological Building of the Harvard Medical School.

The course is designed to afford students a practical acquaintance with the characteristic histological alterations in the more important diseases of the nose and throat. Sections are stained and mounted by the student and retained by him as a collection to serve as a basis for the translation of clinical descriptive terms into their histological equivalents. The histological material is selected and prepared with special reference to clinical diagnosis and treatment. In connection with this course a student should have taken Laryngology 1.

EXAMINATIONS

There will be two kinds of examinations, general and practical. Two general examinations, each both oral and written, will be required of the candidate for the M.D. degree, the first after the completion of the second year, and the second after the completion of the fourth year of medical study. Practical examinations will be held in the various subjects of the curriculum.

For the first general examination the student may choose either June or September, but no student will be admitted to this examination until he has completed the courses included in the examination, and has passed practical examinations in these various courses. The subjects comprised in the first general examination will be Anatomy, Histology and Embry-

ology, Physiology, Biological Chemistry, Pathology and Bacteriology. This examination further shall assume and require an elementary knowledge of Physics, Inorganic and Organic Chemistry, and Biology.

For the second general examination the student may choose either June or January, but no student will be admitted to this examination until he has passed satisfactorily the first general examination, has completed four years of medical study in four different calendar years, including at least one year of resident study at the Harvard Medical School, has completed the courses included in this examination, and has passed practical examinations in these courses. The subjects comprised in the second general examination will be Preventive Medicine and Hygiene, Materia Medica and Therapeutics, Medicine, Surgery, Pediatrics, Obstetrics, Gynaecology, Dermatology, Syphilis, Neurology, Psychiatry, Ophthalmology, Otology and Laryngology.

No student who has failed to pass a general examination will be permitted to repeat the examination within the calendar year in which he failed. Any student who fails three times in a general examination will be debarred from further attempts.

The practical examinations will be conducted by the several Departments, and the student may choose whether he will take the practical examinations at the end of each course, or near the time of the general examination.

In addition to the above examinations every student is required:—

To dissect the three parts of the body to the satisfaction of the demonstrator;

To receive practical instruction in anaesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

To take charge of and report on six cases in Obstetrics, under supervision and instruction.

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES

Degree of Doctor of Medicine

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before *the first day of May*.

A graduate of another Medical School of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned, but he may take the examination in any subject only at the times when regularly it is held.

Degree of Doctor of Public Health

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of Doctor of Public Health must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of Doctor of Public Health, and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medicine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of Doctor of Public Health. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of Doctor of Public Health.

Degrees of Master of Arts and Doctor of Philosophy

The degree of MASTER OF ARTS is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the *fifteenth day of January*. See page 580, University Catalogue for 1911-12, for the conditions of candidacy for the degree of Master of Arts, and for the requirements of the Faculty of Arts and Sciences for this degree.

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students. Information about these courses may be obtained from Professor WALTER B. CANNON, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

Degree of Doctor of Medicine

The fees are:—For matriculation, *five dollars*; for instruction, *two hundred dollars* for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, *one hundred and twenty dollars*. During the first year there are the following additional expenses: three dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for Physiological material; and a maximum of ten dollars a year for Chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* nine dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique; and a deposit of five dollars is required to cover breakage in

* The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

the laboratory course in the Theory and Practice of Physic, the balance of this deposit to be returnable at the end of the year. In the fourth year a charge of seven dollars is made for material used in the course in Operative Surgery. A deposit of one dollar with the Dean will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Payment of Fees

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of *one hundred and fifty-seven dollars*; *each second-year student* is required to pay in the same manner *one hundred and twenty-eight dollars*; and *all other students* are required to pay, in the same manner, the sum of *one hundred and twenty dollars*. Fourth-year students electing Surgery are required to pay a charge of seven dollars for material in Operative Surgery. The remainder of the tuition fee — *eighty dollars* each for all students — must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Degree of Doctor of Public Health

A fee of \$150 is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

Degrees of Master of Arts and Doctor of Philosophy

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

Stillman Infirmary Fee

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Bond required of Students

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Withdrawal from the School

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. *No degree can be granted until the student has paid the full tuition fee for each year (first, second, third, fourth) in which he has been registered as a member of the School.*

If a student withdraws from the School for part of a year for good and sufficient reason as determined by the Faculty, he may leave his fees deposited with the Bursar to be used at some later date for instruction equivalent to that which he missed by his withdrawal. If a student shortens his four years' work by working in the Summer School of Medicine, he must still pay a full tuition fee for each year he is registered as a member of the School.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students, who are admitted freely to the Out-Patient departments, wards and operating rooms of these hospitals : —

The Collis P. Huntington Memorial Hospital. — This Hospital, which has been erected by the Cancer Commission of Harvard University on the Medical School grounds, will afford opportunity for the study of human tumor cases, with the advantage of a unification of clinical and laboratory facilities. The aim of the hospital is the study of special problems with the view of adding to the knowledge of the natural history and the rational treatment of tumors, and also to be of public service in affording means for early diagnosis and in carrying out treatment or giving advice regarding therapeutic measures. Accommodations are provided for from twenty to twenty-four in-patients ; out-patients are also received at stated hours.

The Peter Bent Brigham Hospital. — Construction of this general hospital on ground adjacent to the Medical School buildings has begun, and its completion is expected in the autumn of 1912. Dr. HENRY A. CHRISTIAN, Hersey Professor of the Theory and Practice of Physic, and Dr. HARVEY CUSHING, Professor of Surgery, have been appointed by the trustees of the hospital Physician-in-chief and Surgeon-in-chief respectively.

The Massachusetts General Hospital. — During the past year, about six thousand five hundred patients were treated in the wards, six thousand cases were treated in the accident ward, and there were visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the surgical building. Clinics in the following special branches have been established in connection with the out-patient department : Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedics, and Diseases of the Genito-Urinary System. Two Dalton scholarships, of \$500 each, are open to the house pupils.

The Boston City Hospital. — During the past year, fifteen thousand, six hundred and thirty-one cases were treated in its wards, and there were over one hundred and eighty-four thousand visits in its various out-patient departments. The medical wards always contain many cases of

acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, six thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over three thousand six hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than eight hundred patients were delivered during the last year in the Hospital. In the out-patient department, more than two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary.—About one hundred thousand visits were made by patients at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery. A well-equipped Hospital for Children, with a capacity of thirty beds (chiefly for medical cases), is attached to the Dispensary.

The Infants' Hospital.—The wards of the Hospital are devoted entirely to children under two years of age. During the past year about fifteen thousand visits were made by children of all ages to the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital.—During the past year more than seventeen hundred cases were treated in the wards and about twenty-nine thousand visits were made to the out-patient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital.—During the past year four hundred and sixteen patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert

in these methods. In the laboratories, pathological, chemical, and psychological, work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital.—During the past year sixteen hundred and twenty-three patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Besides regular commitments, emergency, voluntary and temporary care cases are received; the whole number of patients admitted last year was seven hundred and sixty-two, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary.—Over sixty-one thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.—This Hospital is designed particularly for the treatment of chronic diseases. It has three hundred and twenty-five beds, with an average daily number of patients of about three hundred. In connection with it is a maternity department with an average of twenty-seven children and twenty-nine births. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 75 per cent of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Carney Hospital.—During the past year there were treated at this hospital three thousand seven hundred and one ward patients and in the out-patient department there were forty-five thousand visits by patients. The surgical, medical, gynaecological, and orthopedic services are under the direction of single heads with continuous service, who with assistants manage both the house and out-patient departments.

Clinical instruction will be given in connection with the various services, and opportunity will be afforded for a limited number of qualified men to engage in clinical investigation under the direction of the heads of services and their assistants. The orthopedic clinic offers special opportunities for the study of chronic joint affections in the adult.

The Free Hospital for Women. — This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital has a capacity of sixty-seven beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week beginning at nine o'clock in the morning and at three o'clock in the afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché

models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, many of them preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in each of the four laboratory buildings contain the literature of the subjects taught in the building. These libraries are open to students daily and contain about 19,000 volumes, 29,000 pamphlets, and receive 255 different current periodicals. The students have a small general medical library of over 400 volumes and about 20 current periodicals for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 73,000 bound volumes and 53,000 pamphlets, and nearly 650 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

Fellowships

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and twenty-five dollars each, and of the last, two hundred and fifty dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original

investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship; unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of five hundred and twenty-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand dollars. Founded in 1910 by FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D. "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

Scholarships

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

THE JAMES JACKSON CABOT SCHOLARSHIP; with an income of two hundred and seventy-five dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a scholarship "to aid and encourage practical work in scientific medicine."

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

The **LEWIS AND HARRIET HAYDEN SCHOLARSHIP** for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income, two hundred and fifty dollars, may be divided between two or more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

The **JOSEPH PEARSON OLIVER SCHOLARSHIP**, with an income of four hundred dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of two hundred and fifty dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

The **JOHN THOMSON TAYLOR SCHOLARSHIP**, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious students needing assistance. The next assignment in the Medical School will be made in 1914.

JAMES EWING MEARS SCHOLARSHIP IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of any degree from Harvard University. For further particulars, see University Catalogue for 1911-12, page 588.*

THE W. GRAHAM BOWDOIN, JR., SCHOLARSHIP; with an income of two hundred and fifty dollars, "to be awarded each year to a deserving student from the State of Maryland, who may be registered in any department of the University." For further particulars, see University Catalogue for 1911-12, page 551.

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further in the University Catalogue for 1911-12, page 560.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. This Scholarship, founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee or Kentucky. The terms of gift are quoted further on page 606 of the University Catalogue for 1911-12.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever and Hayden Scholarships must be handed to the Director of Scholarships on or before *November 30*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

BOYLSTON MEDICAL PRIZES

These prizes, which are *open to public competition*, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee. In future, however, the prizes will be awarded at longer intervals, and will include the offer of a medal as well as a pecuniary reward.

At the annual meeting held in Boston in 1912 a prize was awarded to ARTHUR BREWSTER EMMONS, 2d, M.D., for a dissertation entitled: *A Study of the Variations in Woman's Pelvis, based on observations made on two hundred and seventeen specimens of the American Indian squaw.*

For 1913 two prizes are offered:—

1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.

2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology*. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before *January 1, 1913*.

The next prize that will be offered will be under date of 1915, and will include a larger pecuniary reward, as well as a Boylston Medal. Details in regard to this prize will be announced later.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same

sentence or device, and containing within the author's name and address. *Any clew by which the authorship of the dissertation is made known to the Committee will debar such dissertation from competition.*

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within *one year* after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; FRANZ PFAFF, M.D., THEOBALD SMITH, M.D., WILLIAM T. PORTER, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize.—A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize.—For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue for 1911-12, pages 535-541, and 585-587.

COURSES FOR SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work. Hitherto such students have been registered as members of the Harvard Medical School; but, with the establishment of the Graduate School of Medicine, October 1, 1912, these special students will be enrolled in the membership of that School, if they are not eligible for the degree of Doctor of Medicine.

COURSES FOR GRADUATES

Beginning October 1, 1912, graduate instruction in medicine will be organized as a Department of the Faculty of Medicine of Harvard University, with a separate Dean and Administrative Board.

The object is, by better organization and the development of teaching facilities, — both clinical and laboratory, — to offer graduates in medicine opportunities to continue their studies in as thorough and scientific a manner as in the Medical School proper.

Adequate opportunities for study will be offered for those graduates who wish to review past studies and for those who wish to keep abreast of recent advances in medicine. Other courses will be offered for those who are interested in special subjects, and the excellent opportunities for advanced study and for research in all departments of medical science will be made available for those who are qualified by previous training to undertake such work. Thus graduates in medicine, both of remote and of recent date, whether desiring fundamental reviews or in quest of the attainment of higher standards, are provided for. Graduates of recognized medical schools will be accepted as students.

While all courses are intended primarily for those who hold degrees from recognized medical schools, certain courses in the scientific subjects are adapted to the needs of advanced students and teachers of science. Such persons may be admitted to courses on the approval of the Administrative Board.

Undergraduate students of medicine may be admitted by vote of the Administrative Board to such courses as they are qualified to take. Special consideration for the needs of such students will be given in the plans for summer courses.

The laboratory facilities in the buildings of the Harvard Medical School and at some of the hospitals are available for graduate instruction, as are also abundant clinical opportunities of all kinds in the following institutions:—

Massachusetts General Hospital,	Free Hospital for Women,
Boston City Hospital,	Children's Hospital,
Peter Bent Brigham Hospital,	Infants' Hospital,
Carney Hospital,	Massachusetts Babies' Hospital,
Boston Dispensary,	McLean Hospital.
Massachusetts Eye and Ear Infirmary,	Boston State Hospital,
Boston Lying-in Hospital,	Danvers State Hospital.

Clinical and laboratory instruction will be conducted in small classes so that students may receive personal attention.

The fees for separate courses vary from \$5 to \$125, according to the nature of the instruction and the duration of the course. An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the office of the Dean of the Graduate School of Medicine, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the Dean of the Graduate School of Medicine, Harvard Medical School, Longwood Avenue, Boston, Mass.

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10		<i>October.</i> Anatomy. Lecture. <i>November, December.</i> Demonstrations and Laboratory Work.	<i>Oct., Nov., Dec.,</i> Anatomy. Lecture.	<i>October.</i> Anatomy. Lecture. <i>November, December.</i> Demonstrations and Laboratory Work.		<i>Oct., Nov., Dec.,</i> <i>9-11.</i> Histology. <i>January, 9-11.</i> Anatomy. Lecture.
10-11			<i>October, November, December, January.</i> Demonstrations and Laboratory Work.			<i>Oct., Nov., Dec.,</i> <i>January, 11-1.</i> Anatomy. Lecture and Demonstrations
2-6			<i>January.</i> Anatomy. Lectures, Demonstrations, and Laboratory Work.			
2-2.30			<i>October, November, December.</i> Histology. Lecture.			
2.30-6			Histology. Laboratory.			<i>Oct., Nov., Dec., Jan.</i> General Chemistry.

FIRST YEAR. — Second Half-Year

PHYSIOLOGY. FEBRUARY

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-1			Laboratory Experiments.			
			<i>March, April, May.</i>			
9-10			Lecture or Demonstration.			
10-12.15			Laboratory Experiments.			
12.15 1			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.	Laboratory.		

SECOND YEAR. — First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.		JANUARY.
9-12	Pathology. Laboratory.	1 week. Pathology. Laboratory. Daily.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory. T. Smith and E. E. Tyzzer. Daily.	9-10	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				9-12	Tuesday, Thursday, and Saturday.
				10.30-12	Monday, Wednesday, and Friday. Pathology. Laboratory.
12-1	Pathology. Lectures. Daily.			12-1	Pathology. Lectures. Daily.
2-3	Bacteriology. Lectures. Daily except Saturday.		Neuropathology. Daily except Saturday. Lectures and Laboratory. Southard.		Surgical Pathology. Laboratory. Daily except Saturday. Nichols.
3-5.30	Bacteriology. Laboratory. Daily except Saturday.				

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
	M. G. H.	M. G. H.	B. C. H.	M. G. H.	M. G. H.	B. C. H.
9-10	Clinical Medicine Clinic Edsall	Surgery Clinic Porter	Surgery Clinic Blake	Theory & Practice Clinic Badger	Surgery Clinic Greenough	Clinical Medicine Clinic Sears
10-11						Surgery Clinic Lothrop
11-12	Section Work					
1-3	Clinical Pathology. Bldg. D.					
3-4	Preventive Medicine and Hygiene. L. Rosenau Bldg. E.	Theory & Practice. L. Christian Room 201 Bldg. A.	Preventive Medicine and Hygiene. L. Rosenau Bldg. E.	Preventive Medicine and Hygiene. L. Rosenau Bldg. E.	Theory & Practice. L. Christian Room 201 Bldg. A.	
4-5	Surgery. L. Room 201 Bldg. A.	Material Medica and Pharmacology L. & R. Bldg. E.	Pharmacology. L. Pfaff Bldg. E.	Surgery. L. Room 201 Bldg. A.	Pharmacology. L. Pfaff Bldg. E.	
5-6	Surgical Technique 6 lectures Lothrop Room 201 Bldg. A.	Surgery. L. Room 201 Bldg. A.			Surgery. R. Lothrop and Greenough Room 201 Bldg. A.	

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
<i>Class Exercises</i> 9-10	Theory and Practice Clinic Hewes, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Smith, M. G. H.	Theory and Practice Clinic. Stone, Lee, or Lord, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Edsall, M. G. H.
10-11	Surgery Clinic Porter M. G. H.	Clinical Surgery Clinical L. Nichols, J. B. Blake B. C. H.	Dermatology Clinic Bowen, M. G. H.	Neurology Clinic Taylor, M. G. H.	Pediatrics Clinical L. Rotch, C. H.	Theory and Practice Clinic Pratt, M. G. H.
<i>Sections</i> 11-1	Section Work.					
2-3		Dermatology. L. White, Room 201 Bldg. A. <i>Dec. 17, Jan. 28</i>				
3-4	Obstetrics. L. Green Room 205 Bldg. A.	Theory & Practice. L. Christian, Room 201 Bldg. A.	Obstetrics Conference Swain Room 205 Bldg. A.	Obstetrics. L. Green Room 205 Bldg. A.	Theory & Practice. L. Christian, Room 201 Bldg. A.	
4-5	Surgery. L. Room 201 Bldg. A.	Dermatology. L. White, Room 201 Bldg. A. <i>Sept. 24, Oct. 29, Nov. 26</i> <i>Dec., Jan.</i> Syphilis. L. Post, Room 205, Bldg. A.	Surgery. L. Room 201 Bldg. A.	Pediatrics. L. Rotch Room 201 Bldg. A.	Obstetrics. R. Newell Room 205 Bldg. A.	
5-6	<i>Oct., Nov.</i> Ophthalmology Standish Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Lovett Room 201 Bldg. A.	Surgery. R. Lothrop and Greenough Room 201, Bldg. A.	<i>Oct., Nov.</i> Ophthalmology Standish Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Lovett Room 201 Bldg. A.	<i>Oct., Nov.</i> Surgery. L. Room 205, Bldg. A. <i>Dec., Jan.</i> Orthopedics Lovett, Room 201 Bldg. A.	Therapeutics. L. Pfaff Bldg. E.	

UNDERGRADUATE COURSES. — TABULAR VIEW

9

THIRD YEAR. — Second Half Year.

Class Exercises	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	Theory and Practice Clinic Pratt, M. G. H.	Clinical Medicine Clinic Robey, White, or Locke, B. C. H.	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Robey, White, or Locke, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.
10-11	Clinical Surgery. C. A. Porter M. G. H.	Clinical Surgery Nichols, J. B. Blake B. C. H.	Dermatology Clinic Bowen, M. G. H.	G.-U. Surgery Clinical L. P. Thorndike. B. C. H.	<i>Feb., Mar.</i> Pediatrics Clinical L. Morse Infants' Hospital <i>Apr., May</i> Syphilis Clinical L. Post, B. D.	Neurology Clinic Taylor, M. G. H.
Sections	Section Work.					
11-1						
2-3		Dermatology. L. White, Room 201, Bldg. A. <i>Feb. 25, Mch. 25</i> <i>April 29, May 27</i>			Psychiatry Cowles Room 201, Bldg. A.	
3-4	Obstetrics. L. Green Room 205 Bldg. A.	Surgery Case Teaching J. B. Blake Room 205, Bldg. A.	Obstetrics Conference Swain, Room 205 Bldg. A.	Obstetrics. L. Green Room 205 Bldg. A.	Obstetrics. R. Newell Room 205 Bldg. A.	Psychiatry Clinic Cowles, B. S. H.
4-5	Pediatrics. L. & R. Morse Room 205 Bldg. A.	Pediatrics. L. Rotch Room 201 Bldg. A.	Gynaecology L. or R. Green, Room 205 Bldg. A.	Laryngology Lecture Coolidge, Room 205 Bldg. A.	Gynaecology. L. or R. Green Room 205 Bldg. A.	
5-6	Clinical Medicine Case Teaching Cabot Room 205 Bldg. A.	<i>Feb., Mar.</i> Otolaryngology Lecture C. J. Blake, Room 205 Bldg. A. <i>Apr., May</i> Laryngology Lecture Coolidge Room 205, Bldg. A.	Clinical Medicine Case Teaching Cabot Room 205 Bldg. A.	Otolaryngology Lecture C. J. Blake, Room 205 Bldg. A.		

DEGREES

ON FEBRUARY 28, 1912. DEGREES WERE CONFERRED AS FOLLOWS: —

M.D.

John Woodward Abbott, A.B. (*Bates Coll.*) 1905.

Charles Franklin Kingsbury Bean, A.B. (*Tufts Coll.*) 1907.

Francis Joseph Doherty.

Harry William Haight, A.B. (*Princeton Univ.*) 1907.

Robert Bates Hunt, A.B. (*Clark Univ.*) 1907.

Thomas Joseph McLaughlin, A.B. (*Mt. St. Mary's Coll.*) 1902, A.M. (*ibid.*) 1904.

Jean Sears Millard, S.B. 1901.

M.D. cum Laude

Edward Levis Prizer, A.B. 1908 (1907).

M.D. Out of Course

Amos Thomson Harrington, A.B. (*Yale Univ.*) 1891, S.T.B. (*ibid.*) 1897.
of the class of 1910.

ON COMMENCEMENT
AS FOLLOWS: —

Harold Lindsay A. [redacted] of Kentucky) 1905, S.M. (*ibid.*)
1907, M.D. (*H. [redacted]*)

William Gilbert A. [redacted] (*Western Reserve Univ.*) 1883, A.B. (*ibid.*)
Univ.) 1902, A.M. (*ibid.*) 1903, S.M. (*ibid.*) 1909.

Edwin Henry Schorer, S.B. (*Univ. of Missouri*) 1902, M.D. (*Johns Hopk.*)
Univ.) 1906.

M.D.

Samuel Mitchell Alter, A.B. 1909 (1908).

Daniel Clarke Brennan, A.B. 1907.

Eliot Sanborn Cogswell, A.B. (*Dartmouth Coll.*) 1906.

Anthony Bernard Diepenbrock, A.B. (*Santa Clara Coll.*) 1908.

Joseph Aloysius Donovan, A.B. (*Bates Coll.*) 1908.

Malcolm Robertson Elliott, A.B. (*Acadia Univ.*) 1908.

Earle Edwin Farnsworth, A.B. (*Cornell Univ.*) 1903.

Edgar Sidney Fortner, A.B. (*Missouri State Univ.*) 1910.

Thomas Francis Grady, A.B. (*Holy Cross Coll.*) 1908.

Ernest Henry Gruening, A.B. 1907.

John Wilkes Hammond, Jr., A.B. (*Dartmouth Coll.*) 1907.

Herbert Elisha Harris, A.B. (*Brown Univ.*) 1907.

- Norman Paul Hersam, S.B. (*Univ. of California*) 1908.
 Herbert Handy Howard, S.B. (*Tufts Coll.*) 1909.
 Ira Butler Hull, A.B. (*Bates Coll.*) 1908.
 Don Jerome Knowlton, A.B. 1908.
 Frank Charles William Konrad, S.B. (*Univ. of Wisconsin*) 1910.
 Alfred Edward Meyers, A.B. (*Leland Stanford Jr. Univ.*) 1907.
 Alvah Strong Miller, A.B. (*Univ. of Rochester*) 1907.
 William Michael O'Shea, A.B. (*Gonzaga Coll.*) 1907.
 Raymond Brewer Parker, S.B. (*Dartmouth Coll.*) 1908.
 Isidor Perlstein.
 Donald Wallace Porter, A.B. (*Yale Univ.*) 1908.
 Wayne Stevenson Ramsey, A.B. (*Washington and Jefferson Coll.*) 1908.
 André William Reggio, A.B. 1908.
 Clarence Hudson Richardson, A.B. (*Lincoln Univ.*) 1901.
 Clifford George Rounsefell, A.B. 1907.
 Clyde Hadrian Tearnan, S.B. (*Univ. of Wisconsin*) 1910.
 Raymond Arthur Tearnan, S.B. (*Univ. of Wisconsin*) 1910.
 Charles Francis Thomas, A.B. (*Bowdoin Coll.*) 1907.
 Donald Vinton Baker, A.B. 1909.
 Lyman Guy Barton, Jr., A.B. 1909.
 Louis Hopewell Bauer, A.B. 1909.
 William Wallace Behlow, A.B. (*Leland Stanford Jr. Univ.*) 1907.
 Whitman King Coffin, A.B. 1909.
 Frederick Amasa Collier, S.M. (*So. Dakota State Coll.*) 1908.
 Lewis Wendell Hackett, A.B. 1905.
 William Augustus Hinton, S.B. 1905.
 Walter Maurice Lacey, A.B. (*Williams Coll.*) 1908.
 Percy Jonathan Look, A.B. (*Boston Univ.*) 1908.
 Henry Lyman, A.B. 1901.
 George Richards Minot, A.B. 1908.
 Joseph Leroy Murphy, A.B. 1909.
 Ezekiel Pratt, A.B. 1909.
 Francis Minot Rackemann, A.B. 1909.
 Eugene Watson Rockey.
 Erville Forrest Rogers, Jr., A.B. 1908.
 Wilson George Smillie, A.B. (*Colorado Coll.*) 1908.
 John Edward Talbot, A.B. 1902, LL.B. 1905.
 Philip Duncan Wilson, A.B. 1909.

ADMISSION EXAMINATION

1912

CHEMISTRY

INORGANIC CHEMISTRY

1. Describe the following substances: Hydrochloric acid, potassium permanganate, iodine, nitrous acid.
2. How much carbonic acid can be prepared from 100 grams of sodic bi-carbonate?
3. How would you dissolve sodium, zinc, tin, lead, platinum?
4. What happens when nitric acid is added to a sodium chloride solution?
5. Give the names and formulas of five different metallic oxides.

ORGANIC CHEMISTRY

1. Write the formulas of glycerin, lactic acid, picric acid, phenol, acetaldehyde.
2. Give the names, structural formulas and properties of H_2CO_2 and $\text{H}_2\text{C}_2\text{O}_4$.
3. Discuss isomerism and give five illustrations.
4. Describe acetone, aniline chloroform, benzaldehyde.
5. Describe three experiments which you did in organic chemistry.

EXAMINATION PAPERS

(Annual Examinations, 1912)

First-Year Studies

ANATOMY — Asst. Professor WARREN

1. Describe the atlas and axis and the joints between them and the occipital bone.
2. Describe the middle ear.
3. Describe the valves of the heart.
4. Describe the lesser peritoneal cavity and its communication with the general abdominal cavity.
5. Describe the muscles of the perineum.
6. Describe the origin, course, and distribution of the ulnar nerve.

HISTOLOGY AND EMBRYOLOGY — Professor MINOT

[Each student is given four sections to correspond with the first four questions given below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

1. What is the organ? Draw the different kinds of epithelium in the section. What evidences of cell activity are shown?
2. What is the specimen? Describe the development of the chief components. What is the stain?
3. Describe the specimen.
4. Describe the specimen.
5. Describe briefly the origin of the (a) kidney, (b) retina, (c) semiferous tubules, (d) pancreas, (e) semicircular ducts (canals).

PHYSIOLOGY — Professor CANNON

Answer any five questions. Mention, where possible, experimental evidence in support of your statements.

1. Discuss the distribution of smooth and striated muscle in the body, the innervation of the two types of muscle, and their physiological peculiarities.
2. Discuss the methods, nervous and circulatory, by which bodily activities are coordinated.

3. What is the function of arterial blood pressure? Consider in detail the factors affecting it.
4. Discuss the coagulation of the blood. What conditions favor, what retard, coagulation?
5. Define and illustrate the meaning of psychic secretion, and describe its rôle in digestion.
6. What is the value of a uniform body temperature? Under what conditions may the temperature vary in mammals?

BIOLOGICAL CHEMISTRY — Professor FOLIN

1. Discuss the origin and significance of the "acetone bodies" in urine.
2. Discuss the "respiratory quotient" and its relation to the kind of food consumed.
3. Describe in full the colorimetric method for the determination of the total nitrogen in urine.
4. Write the graphic formulae of uric acid, creatine, palmitic acid, phenylalanin and cystin.
5. Write out a 24-hour diet list representing about 3000 calories and 12 grams of nitrogen.
6. Name and characterize three disaccharides.
7. Write the formulae and give the names of two dipeptides.
8. Describe the determination in urine of (a) sugar, (b) total sulphur.
9. Discuss the phenomenon of nitrogen equilibrium.
10. Discuss the function of haemoglobin.

Second-Year Studies

BACTERIOLOGY — Professor ERNST

1. How would you differentiate *B. typhosus* from *B. coli communis*?
2. What is Tuberculin?
3. Describe the methods of cultural diagnosis of Diphtheria.
4. What does an antitoxin do upon injection?

PATHOLOGY — Professor COUNCILMAN

EXAMINATION IN PATHOLOGY

1. Name a number of pathological conditions in which giant cells may be found.
2. Discuss fatty degeneration. What is meant by this? What may be said regarding the source of the fat found in this?
3. What organs of the rabbit are most likely to be affected by the intravenous injection of *staphylococcus aureus*? Describe the development of a typical lesion so produced.

4. What is haemolysis? Its relation to haemoglobinuria? How may the latter be produced experimentally?

5. What are the chief characteristics of a so-called benign as distinguished from a malignant tumor?

6. Describe the lesions which would be found in the heart, lungs, liver and kidneys in an autopsy on a chronic case of mitral endocarditis resulting in stenosis and insufficiency of the mitral valve.

EXAMINATION IN PARASITOLOGY

(Write in separate book.)

7. Describe the life cycle of *Trichinella spiralis*, of *Uncinaria* (*Ankylostoma duodenale*, or *Necator americanus*), and give in detail the modes of transmission.

8. Give the complete development of:—(a) *Eimeria stiedae*, the coccidium of the rabbit; (b) *Plasmodium vivax*, the organism of tertian malaria.

EXAMINATION IN NEUROPATHOLOGY

(Write in separate book.)

9. What is the course of impulses from the periphery to the cerebellar cortex? Mention diseases interfering with the neurones in question.

10. What is the effect in the periphery of destroying corticospinal neurons (pyramidal tract). How many types of neurone might be affected in poliomyelitis of lumbar and low thoracic extent?

PREVENTIVE MEDICINE AND HYGIENE — Professor ROSENAU

1. Discuss pasteurization. State objects; temperature and time; advantages and disadvantages; methods etc.

2. Given a hospital with one general ward and one isolation ward; and cases of typhoid fever and tuberculosis to care for. Which one of these would you isolate? Why? How would you prevent the spread of the infection of the other disease to the patients in the general ward?

3. Discuss the filtration of public water supplies. Contrast slow sand filtration with mechanical filtration.

4. What is meant by the following: Contacts; an infectious disease; a contagious disease; modes of transmission; channels of infection; missed cases?

What are the usual modes of transmission of measles, scarlet fever, common colds, hookworm disease, plague, typhus fever?

Third-Year Studies**MATERIA MEDICA AND THERAPEUTICS—Professor PFAFF**

1. Action and uses of adrenalin.
2. Action and uses of arsenic. Mention newer preparations and state the dangers incident to their use.
3. Compare the action of simple and drastic purgatives, and mention the important members of the different groups of drugs used for this purpose.
4. Compare the action of atropine and physostigmine.
5. Desiring to increase the flow of urine in a given case, what substances would you use, and state pharmacological reasons for their employment.
6. Give in detail the treatment of hyperacidity of the stomach, also of anacidity.
7. Give general methods of treatment in cases of acute and of chronic poisoning.
8. General treatment of diabetes mellitus.
9. Write prescriptions for the following drugs, avoiding abbreviations and giving full directions to the patient: —
 - (a) Nitroglycerine
 - (b) Apomorphine
 - (c) Chloral
 - (d) Caffein
 - (e) Codein
 - (f) Atropin

THEORY AND PRACTICE OF PHYSIC—Professor CHRISTIAN

1. Discuss chronic poisoning with (a) lead, (b) arsenic. Give differential diagnosis points between the two.
- 2 and 3. Give the results of the physical examination of a patient with chronic myocarditis (myocardial insufficiency) in the stage of broken compensation. Describe in detail your treatment of this case during the twenty-four hours following your physical examination, basing all your procedures on the described physical findings. Describe your treatment in detail during the twenty-four hour period beginning four days later, basing all of your procedures on the results obtained by the treatment previously given. Similarly describe your treatment of the case at a period three weeks later. (Write out a prescription for all drugs advised.)
4. Describe the symptomatology and physical findings in incipient pulmonary tuberculosis.
5. Discuss the symptomatology, diagnosis and treatment of gastric and duodenal ulcer.

CLINICAL MEDICINE—Professor SHATTUCK

Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive though correct diagnosis. Write out all prescriptions in full.

CASE 1.

A grandmother of 57 was seen December 12, 1910. She has done hard muscular work all her life, but has had no illness and passed the menopause without disturbance five years ago. The hands have felt numb for 10 to 15 years. For 3 years she has had pain in her back and knees, especially at night. There have also been attacks of abdominal "colic" not definitely located, occurring usually at night, followed by movements of intestinal gas, nausea, dozing and relief. She thinks she has been jaundiced in some of those attacks, but can give no account of their number. They are rare of late.

In July, 1910, her legs "gave out" and she has been in bed most of the time since. Any motion of the legs causes pain in them and in her back; standing up and sometimes even turning over in bed produces severe pain in her back, not exactly localized. Her feet prickle and the floor feels like a cushion when she stands.

Her appetite is fair. The bowels move daily with Cascara, and her sleep is tolerably good. She has had no fever so far as known, no oedema or cough and no disturbance of micturition except nocturia (1-2).

Examination showed that she stood with the whole spine much bent, so that her height was but 4 feet 10 inches. Her weight was 90 lbs. In the mid dorsal region 4 spinous processes seemed more prominent than normal. The heart and accessible arteries showed nothing abnormal. Throughout the left lung the breathing was diminished but of normal quality with fine crackling sounds. Percussion and palpation negative. Knee jerks exaggerated; double ankle-clonus. No Babinski. Temperature, blood and urine normal.

Diagnosis? Prognosis? Treatment?

CASE 2.

A salesman, 69 years old, had called himself perfectly well until 10 days ago, and has worked steadily up to the time he was seen, March 2d, 1909. Ten days ago he noticed a sense of pressure in the epigastrium when he hurried. For the past week this has been present continually and has been accompanied by some difficulty in sleeping. For three days his legs have been swollen and he has been slightly hoarse and notices some whistling in his throat. Last night he had slight pain in the region of the left axilla. His appetite has been good, his bowels slightly loose as a result of taking a laxative of late. As a rule he has had nocturia (1-2) for some years. This has not been present of late.

On further questioning he recollects that he was told at 21 that he had heart trouble and that he was very nervous and weak at that time, but passed an examination for life insurance at 30 and again at 40.

He has been told that his pulse was often intermittent, but he has felt perfectly well and often ran fast without any discomfort. Examination showed a systolic blood pressure of 190, diastolic 100. The cardiac apex is in the 6th interspace $1\frac{1}{2}$ inches outside the nipple. Immediately following the 1st sound at the apex, is a murmur, which almost dies away in the interval between the 1st and 2d sound, but increases with a crescendo at the end of this interval and is at its maximum just before the second sound, which at the apex is very loud. At the base, the two 2d sounds are of moderate intensity and equal. There is marked irregularity in force and rhythm, apparently of the absolute type. Squeaks and a few fine crackles are evenly distributed throughout both lungs, which show otherwise no abnormality. The patient is so obese that it is difficult to get at any of the peripheral arteries for an estimation of their condition. The abdomen showed nothing abnormal. He had moderate oedema of the legs.

Urine is 1 qt. in 24 hours: specific gravity 1012, .1% albumen, no casts. Blood normal, likewise the reflexes.

Diagnosis? Prognosis? Treatment?

CASE 3.

A fireman, single, 31 years of age, gives the following history: —
F. H. Negative.

P. H. Whooping-cough, measles as a child — always well since. Habits: Tobacco in moderation. Has never used alcohol. Gonorrhoea one and two years ago. Has never had syphilis.

P. I. Twelve days before entrance to hospital he was seized with severe pain all through abdomen. Was "doubled up" with pain for four days. Pain at first diffuse, finally somewhat localized in the right groin. Vomited repeatedly on the first day of illness whenever he tried to take food or medicine. Did not pass any urine for 3 days (?) and when finally urine was passed it gave great relief. Patient states that urine was bloody and has been so more or less since. Urine said to contain about a teaspoonful of "gravel like" material the first time he voided it after onset of pain. Bowels did not move for first 3 days of illness, but since, have been regular. No abnormal color to movements noted. Has never been jaundiced. For several days has had chills followed by sweating. Has felt feverish.

P. E. T. 100° — P. 104° — R. 32 — Well developed and nourished, pupils equal and react — Mucous membranes of good color — Throat not remarkable — Knee jerks present — Heart not remarkable. Lungs negative except for dulness with diminished breath sounds below the 4th space anteriorly and below the angle of the scapula posteriorly on the right side. *Abdomen.* Full firm, tympanitic throughout. Slight resistance on the right side, with considerable tenderness on moderate pressure, not sharply localized. *Liver.* Dulness from 4th rib nipple line to one inch below costal border where an indefinite edge can be felt. Spleen not felt. Kidneys not palpable. No tenderness in costo-vertebral angle. Genitals normal. A few glands in axillae and groins. Hb. 80% — White count 43,000. Smear shows polymorphnuclear leucocytosis. No malarial parasites. Urine — High acid 1029, Albumin slightest possible trace — No sugar. Sediment — Amorphous urates numerous red blood cells, small amount of pus.

Rare granular cast, numerous calcic oxalate crystals. Stool — negative. While under observation the patient had chills, nearly every day with rise of temperature and pulse. The temperature ranging at time of chill from 105 to 107. The pulse on one occasion is recorded at 145. The white count varied from 20,000 to 40,000.

Diagnosis? Prognosis? Treatment?

PEDIATRICS — Professor ROTCH

More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.

1. A boy, seven months old, had always been well, except for a very mild attack of whooping-cough from which he had recovered a month before. He was nursed for several months and since then had been given a mixture of whole milk and water with a proprietary food, on which he had thrived. He had a convulsion followed by fever on the morning of April 11th. His temperature had been about 103° F. since then and he had had four more convulsions, the last one during the evening of the 11th. He was given castor oil after the first convulsion and had had as a result several loose, green, faecal movements containing curds. He had not vomited, coughed, or shown any evidence of pain. He was seen at 5 p.m. on April 12th.

Physical examination: He was fairly developed and nourished and of fair color. He was clear mentally. The anterior fontanelle was 3 cm. in diameter and level. There was no rigidity of the neck or neck sign. The pupils were equal and reacted to light. The ear drums were normal. There was no nasal discharge, but the pharynx was slightly reddened. The heart was normal. The respiration was rapid and grunting and the alae nasi were moving. The left chest did not move quite as much as the right and the respiratory sound was not quite so loud in the left back as elsewhere. Nothing else abnormal was detected in the lungs. The level of the abdomen was that of the thorax. It was everywhere tympanitic and there was no tenderness or spasm. The lower border of the liver was palpable 1 cm. below the costal border in the nipple line. The spleen was not palpable. The extremities were normal. There was no spasm or paralysis. The knee jerks were equal and normal. Kernig's sign was absent. There was no enlargement of the peripheral lymph nodes and no efflorescence on the skin. The rectal temperature was 103° F.; the pulse 140; the respirations 72.

(Discuss the above case, giving the differential diagnosis, prognosis, and treatment.)

2. What are the chief conditions in the foetal circulation, the persistence of which result in congenital cardiac disease?

3. A baby, six months old and weighing fifteen and one-half pounds, is taking six feedings of six ounces of the following mixture: —

Gravity Cream	13½ oz.
Skimmed milk	9 oz.
Water	13½ oz.
Milk sugar	2 rounded tablespoonfuls.

It is having two large, hard, crumbly white faecal movements daily. What is the explanation of the peculiar characteristics of these movements?

Give a prescription for the preparation of a food at a laboratory, which will be suitable for this baby.

State the number of calories and grammes of protein per Kilo. of body weight which your food will give the baby.

4. (a) What is the usual period of incubation in mumps?
 (b) Give the differential diagnosis from conditions which simulate mumps.
 (c) What is meant by metastatic mumps?
5. Give the pathology, symptoms, differential diagnosis and treatment of infantile scorbutus.
6. (a) Describe the method of the administration of antitoxin in diphtheria.
 (b) In what ways does diphtheria produce death?

SURGERY — Professor RICHARDSON

1. What are the symptoms of a case of tuberculosis of the hip in the acute stage? Describe the treatment.
2. Describe the different methods that can be employed to induce the growth of epithelium over large superficial, granulating areas.
3. How much danger is there to patients in X-Ray exposures? How much danger to the X-Ray operator? What precautions should be used when working with the X-Ray?
4. What symptoms and physical signs would lead you to make a diagnosis of fracture of the neck of the femur?
5. Describe a sub-coracoid dislocation of the shoulder. What may be its sequelae?
6. What are the signs and symptoms of concealed haemorrhage?
7. What is the treatment of a palmar abscess?
8. What is the treatment of haemorrhoids?
9. What are the symptoms and treatment of acute cholecystitis?
10. Give the diagnosis and treatment of cancer of the tongue.

CLINICAL SURGERY — Professor RICHARDSON

A woman of 63, a widow, with nothing in the family history of importance, was taken on April 27th with nausea, vomiting and diarrhoea. The physician succeeded in checking the vomiting and the diarrhoea; but the patient began to have pain "under the 8th, 9th and 10th ribs on the right side." This pain soon got better, but a tenderness remained at the rib margin on the right side. On April 28th there was an evening temperature of 102.5°. On May 1st the physician detected a lump the size of a walnut, he said, at the seat of pain and tenderness. The next day the lump was decidedly larger. The temperature was normal. There was no vomiting. The bowels had moved regularly.

For years the stomach had been "bad." This was all the history that was available, chiefly on account of the patient's poor condition.

The face was deeply flushed — the cheeks almost cyanotic. The pulse was full and strong, the rate 72. The temperature was normal. Below the rib margin on the right side there was a tender and tympanic tumor about as large as the hand. This tumor did not move with respiration. Its tympany became blended with the liver dulness above and the intestinal tympany below.

The woman was not in any great pain, but she had enough pain slightly to embarrass deep inspiration. Her weight was about 250 pounds.

This patient was immediately removed to a hospital. Her journey aggravated the pain, tenderness, and difficulty of respiration, so that her color was somewhat cyanotic.

- (a) What was the probable diagnosis?
- (b) What were the indications for operation?
- (c) What were the contra-indications to operation?
- (d) What would be your prognosis under the treatment that you advise?

Thomas H., aged 70, married, foreman in a carpet factory, came to the hospital on April 22, 1912. His family history and personal history were unimportant.

Four days before he entered the hospital he noticed a pimple on his left wrist. He remembered injuring this pimple with the belt or the fly-wheel of his carding machine. That night the arm began to ache, and toward midnight there was considerable swelling. The local doctor incised the swelling and put on linseed poultices, which relieved the pain. The swelling continued for two days longer, and then ceased. Meanwhile the skin lesion had become covered with a dark crust, and three large blebs had formed about the abrasion. The arm became swollen to the shoulder.

There was no headache; there were no gastro-intestinal or genito-urinary symptoms; there were no cardiorenal symptoms. There was no fever. The bowels were regular, moving once or twice a day. The appetite was good. The patient slept well, except for the first night, when pain kept him awake until midnight.

Examination showed, over the lower third of the left forearm on the inner side of the anterior surface, a brawny red swelling, with a dark crust in the centre about the size of a fifty-cent piece. About the crust were three large bullae containing a yellowish serum. On the inner surface of the upper arm, from the elbow to the beginning of the upper half of the humerus, was an ecchymosis. There was a large, soft, non-fluctuating gland of the posterior axillary group in the axilla.

What further investigations would you make?

What would be your treatment and your prognosis?

Please give briefly your diagnosis and advise in the following cases.

- (a) April 25, 1912. — A woman aged 39 some twenty years ago (July 5, 1892) had both Fallopian tubes removed for enormous tubercular dilatation. Each tube weighed $1\frac{1}{2}$ pounds. The peritoneum was studded with miliary nodules. Fifteen years ago this patient was married. At the Deaconess Hospital in May, 1909, a large cystic

tumor was removed from the right lobe of the thyroid. There was, as the result of this goitre, dyspnoea, with marked prominence of the eyes.

In April, 1912, the patient noticed a lump in the left breast. The family history was negative. In the left breast, outside the nipple and above it, was a tumor as large as a hen's egg, tender and apparently fluctuating, but painless. Just below this tumor there was a smaller and harder one, to which the skin was adherent, and over which on lateral pressure the skin dimpled. Enlarged lymph nodes could be felt in the axilla. There were no other symptoms whatever, either constitutional or local.

What would you advise in this case? Please give your reasons for this advice.

(b) Fifteen years ago a woman of 77 had had the right breast partially removed for tumor. The axilla was not dissected, nor were the pectoral muscles removed. At the sternal end of the scar a small, hard irregular tumor was discovered early in 1912. This tumor grew rapidly. It was painless, though somewhat tender, and the skin was adherent to it.

What should you say as to the probable nature of the original tumor; and what would you advise in the present one?

OBSTETRICS — Professor GREEN

1. What are the shape, size, and consistency of a normally pregnant uterus at the end of the sixth lunar month? Give a differential diagnosis between such a uterus and other abdominal tumors with which it may be confounded.

2. What is the clinical picture of so-called toxæmia of pregnancy? What laboratory examinations and physical findings would aid in establishing the diagnosis?

3. Presuming that there has been opportunity for complete physical examination of a primigravida within a few days of labor at term, under what circumstances may a well-taught obstetrician expect to conduct labor without a single vaginal examination? What circumstances arising during labor would make it seem advisable to explore the pelvis from below?

4. What is the most frequent site of extra-uterine pregnancy? What are the possible consequences of this form of ectopic gestation?

5. What are the signs of inevitable abortion in the third month? Aside from infection what is the chief maternal danger, and how should it be met?

6. In a primipuerpera, on the evening of the second day after a long, but unassisted, delivery at term, the temperature rises from normal to 104.5° F. with a corresponding rise in pulse; in the absence of other possible causes the uterus is suspected, a culture is taken, and the uterus is thoroughly irrigated; next morning the culture shows a pure growth of streptococcus pyogenes, and the temperature stands at 103.8° F.: how would you proceed with the treatment of the case?

7. Called to a recently delivered sextipuerpera on account of hæmorrhage, a consultant is informed by the midwife in attendance that after the rather precipitate birth of the foetus she had sought to deliver the placenta by pulling on the cord; to her surprise the placenta came away quite easily, but with it came a mass looking like a large fibroid, to which the placenta was still partly attached: a second dose of ergot had failed to arrest the hæmorrhage. Follow the consultant in his diagnosis and treatment of this case.

8. What is the normal mechanism of delivery in posterior positions of the occiput? Why is a knowledge of the mechanism of normal labor essential to successful obstetric surgery?

9. A consultant is called to a multipara who has been in active labor for twelve hours: the attending physician had failed to deliver with forceps after several attempts. The uterus is found in tonic contraction; the foetal heart is no longer audible; the vulva is oedematous; the woman has a pulse of 112. By vagina the head is found presenting in F.D.P. position, firmly engaged in the pelvic brim. The os uteri is somewhat oedematous, but fully dilatable: external pelvimetry shows no pelvic contraction, indeed all previous labors had been normal. Were you the consultant, how would you proceed with this case?

10. What is the chief exciting cause of ophthalmia neonatorum? What prophylactic measures may generally prove effectual?

GYNAECOLOGY — Professor GREEN

1. Retroversion of the uterus: most common causes, symptoms, diagnosis? How may the retroverted uterus be replaced? What are the commonest obstacles to replacement? By what measures may the replaced uterus be retained in normal position?

2. What are the most common exciting causes of pelvic infection? Once introduced, by what routes may bacterial invasion involve any or all of the genito-urinary organs. What glands at the portals of the genito-urinary organs are liable to harbor infecting organisms and give rise to repeated re-infections?

3. Carcinoma of the cervix uteri: early symptoms, clinical appearance, diagnosis? How would you distinguish between operable and inoperable cases? With what common affection may carcinoma of the cervix be confused, and how may the differential diagnosis be made?

4. Aside from surgical mutilation and congenital defects what are the chief causes of amenorrhoea in young virgins? Outline the treatment of this symptom, according to its ascertained cause.

DERMATOLOGY — Professor WHITE

1. The treatment of impetigo contagiosa.
2. Differential diagnosis between alopecia areata, alopecia of ring-worm and alopecia furfuracea.
3. Pityriasis rosea.
4. The treatment of herpes zoster.
5. Differential diagnosis of ringworm and favus of the scalp.

SYPHILIS — Professor POST

1. What is the incubation stage of syphilis ?
2. With a doubtful primary sore what general symptoms may you expect as the earliest evidence of the presence of syphilis ?
3. What is the value of a negative Wasserman ?
4. What are the relative values of mercury and salvarsan ?
5. Define Colles Law and describe the condition of the mothers.

NEUROLOGY — Professor PUTNAM

Answer four questions.

1. Give [by name] forms of neuritis leading, respectively to
 - (a) motor;
 - (b) sensory;
 - (c) trophic; symptoms.
2. What other diseases besides tabes give rise to ataxia of motion ?
3. What diseases lead to paraesthesia of the hands and feet ?
4. Under what forms may insular sclerosis show itself; that is, what difficulties may the differential diagnosis present ?
5. To what groups of symptoms does syphilis of the central nervous system give rise, besides those of tabes, and general paresis ?
6. Describe Freud's view of the pathogenesis of hysteria.

PSYCHIATRY — Dr. COWLES

1. Describe briefly the reflex arc; and the variations of threshold resistances, with certain accompanying mental symptoms that may be thus explained.
2. Define (a) Delusions,
(b) Hallucinations,
(c) Catatonia.
3. Describe briefly the early signs of General Paralysis.

4. CASE. — A young woman, 20 years old, single, American. No neuropathic heredity. She had scarlet fever, measles and pertussis as a child; a "scrofulous gland" in the neck removed at 8 years. She was never a good student though promoted yearly at school. At 13 had eye trouble of "nervous origin"; catamenia began at 13, and regular ever since.

In third year at High School was "over tired" and taken out for a time; "concentration" was difficult and she often sat up late studying. Since leaving school a year ago she has been at home helping efficiently

in the household. Until lately active, athletic, cheerful and readily made friends; no love affairs.

During the past year her emotional nature has been exercised by religious interests; brought up as a Unitarian. She prepared for confirmation in the Episcopal church. In the summer of 1910 morbid sadness appeared, self-reproach and fears of injury, — told her mother of abusing herself — possibly contributive to her neurasthenic condition, or the common exaggeration of self-blame; the sadness intensifying she brooded much and “wished she could get back to the cheerful days before the habit had taken hold of her”; spoke of suicide but only vaguely; took less food, complained somewhat of pain in back, easily irritated, and slightly apprehensive of “burglars,” etc. In autumn improved and seemed quite natural; but at Brockton Fair became over tired, showed signs of over activity, going quickly from one thing to another; improved again in winter.

In Feb. 1911 she went to New York, got tired, “became very nervous and pale, and acted strangely.” Her father sent for had difficulty in persuading her to go home. Then followed increased activity in religion, carelessness in dress, restlessness — worse at catamenia; was very talkative, refused to eat much and sometimes lay in bed refusing food altogether; lost weight. She had no ideas of influence, no stereotyped attitudes, no apathy, no weakness of memory, no hallucinations. Admitted as a voluntary patient to McLean Hospital, March 31, 1911.

In Hospital. — On admission, active, no sleep in first night, talking loudly most of the time, or singing and whistling, and would n't stay in bed, said: “Watch me climb that tree” and climbed up on the bureau. Laughed often, — occasionally profane; had marked though unproductive flight of ideas, showed rapid change of purpose in acts, somewhat distractible; poverty of ideas but no verbigeration. This condition continued, — sometimes irritable and again exhilarated. Appetite became very good.

May 16, 1911. Examination by a student for a clinical report. . . . “Patient seen in about the same condition as above described: loquacious, happy, expression chiefly smiling with an occasional grimace but often changing to a momentary look of mock solemnity. Oriented as to time and place she showed no appreciation of what was wrong with herself, or with other noisy patients. There was some distractibility and tendency to rhyming. I asked if she could weave baskets, she replied: “Oh my, yes! Weave? I can make all kinds of figures. I do my hair up in figure-of-eights.” Asked what the connection was between baskets and her hair, she said: “Oh! I always see connections, — resemblances between people you know! Asked the sum of 16 and 7 she could n't keep her mind on the problem but went on talking; finally being pressed for an answer she said: “20, no 23-skidoo!” and went on joking and rhyming. Her physical condition seemed less good than when seen (by the examiner) some weeks previously, but she had just had her catamenia and a period of excitement worse than any previous one.”

What is the diagnosis and the chief question in making it? Point out the underlying principle involved in the changes of physical condition, through the course of the illness, that may explain the accompanying mental symptoms. Prognosis and treatment?

OPHTHALMOLOGY — Professor STANDISH

1. The Helmholtz theory of accommodation.
2. Diagnosis of Trachoma. What are its ordinary complications ?
3. Describe the treatment of a case of convergent strabismus arising in a child three years of age.
4. What is the Argyll-Robertson pupil and in what diseases may it be present ?
5. Name the various ocular conditions which may be due to syphilis.

OTOLOGY — Professor BLAKE

1. Describe the contour of the external auditory canal.
2. What is the relation of the nerviduct of the facial to the middle ear ?
3. What is the function of the stapedius muscle ?
4. What intratympanic changes would result from a prolonged closure of the tympanopharyngeal tube ?
5. What method would you employ for inflation of the middle ear ?
6. Describe a paracentesis of the drum-head.

LARYNGOLOGY — Professor COOLIDGE

1. The etiology and symptoms of deviations and spurs of the septum.
2. Describe the alterations in the mucous membrane in
 - (a) atrophic rhinitis.
 - (b) vaso-motor rhinitis.
3. Draw and describe the post-nasal image as seen in the rhinoscopic mirror.
4. Describe adenoids.
5. Describe the nerve supply of the larynx, and the more common paralyses.

THE MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

Armstrong, Ronald Budd, PH.B. (<i>Lafayette Coll.</i>)	
1908, A.M. (<i>Columbia Univ.</i>) 1912, M.D. (<i>ibid.</i>)	
1912,	Easton, Pa.
Ch'ian, Shaoching Hsipo, M.D. (<i>Imperial Medical College, China</i>) 1906,	Tientsin, China.
Frost, William Dodge, S.B. (<i>Univ. of Minnesota</i>)	
1893, S.M. (<i>ibid.</i>) 1894, PH.D. (<i>Univ. of Wisconsin</i>)	
1903,	Madison, Wis.

FOURTH CLASS

Blake, Francis Gilman, A.B. (<i>Dartmouth Coll.</i>)	
1908,	Cambridge.
Borden, Russell Porter, A.B. (<i>Mt. Allison Coll.</i>)	
1908,	Lower Canard, N.S.
Buffum, William Potter, Jr., A.B. (<i>Brown Univ.</i>)	
1909,	Newport, R.I.
Butler, Fergus Almy, A.B. 1908,	Danvers.
Carter, James Charles, A.B. (<i>De Pauw Univ.</i>) 1909,	Shelbyville, Ind.
Clark, DeWitt Scoville, Jr., A.B. (<i>Yale Univ.</i>) 1909,	Salem.
Cobb, Stephen Aratas, Jr., A.B. (<i>Bates Coll.</i>) 1909,	Gardiner, Me.
Cole, Norman Brown, A.B. 1909,	Newport, R. I.
Cunningham, Allan Rowe, A.B. 1909,	Gloucester.
Curtis, Charles Samuel, A.B. (<i>Clark Univ.</i>) 1909,	Spencer.
Cutler, Elliott Carr, A.B. 1909,	Brookline.
Denny, George Parkman, A.B. 1909,	Chestnut Hill.
Dolan, William Francis, A.B. 1910,	Somerville.
Faulkner, James Francis, A.B. (<i>Bates Coll.</i>) 1908,	Gardiner, Me.
Favill, John, A.B. (<i>Yale Univ.</i>) 1909,	Chicago, Ill.
Ferguson, Luther Mitchell, A.B. 1910,	Pekin, China.
Frost, Harold Maurice, A.B. (<i>Brown Univ.</i>) 1909,	Tiverton, R. I.
Gilchrist, John Milton, S.B. (<i>Cornell Coll.</i>) 1909,	Waukon, Ia.
Goodwin, Harold Merle, A.B. (<i>Bates Coll.</i>) 1908,	Lincoln, Me.
Goodwin, Ralph Augustus, A.B. (<i>Bates Coll.</i>) 1908,	Lincoln, Me.
Greene, Jeremiah Augustine, A.B. 1909,	Cambridge.

- Grinnell, Francis Browne, A.B. 1909,
 Hill, Lewis Webb, A.B. 1910 (1909),
 Jacobs, Irving William, A.B. 1909,
 Kaiser, Albert David, S.B. (*Univ. of Rochester*)
 1909,
 Kilgore, Alson Raphael, S.B. (*Univ. of California*)
 1909,
 Krout, Boyd Merrill, PH.B. (*Ohio Univ.*) 1909,
 Krusen, Francis Twining, A.B. (*Ursinus Coll.*) 1909,
 Lavelle, Thomas Eugene, A.B. (*Georgetown Univ.*)
 1909,
 Lennox, William Gordon, A.B. (*Colorado Coll.*) 1909,
 Leonard, Edward DeWitt, A.B. (*Amherst Coll.*)
 1909,
 Liu, Jui Heng, S.B. 1909,
 MacKnight, William Frank, A.B. (*Holy Cross Coll.*)
 1908,
 Medlar, Edgar Matthias, S.B. (*Doane Coll.*) 1908,
 A.M. (*Univ. of Nebraska*) 1911,
 Morrison, William Reid, A.B. 1910,
 Neves, Charles Serpa, A.B. 1911 (1910),
 Papas, Prodromos Nicholas, A.B. (*Anatolia Coll.*)
 1907,
 Pierson, Philip Hale, A.B. (*Yale Univ.*) 1908,
 Ruggles, Howard Edwin, A.B. (*Leland Stanford*
Jr. Univ.) 1907,
 Rupp, Roger Ralph, S.B. (*Muhlenburg Coll.*) 1909,
 Saad, Abdelmalik, A.B. (*Assiout Coll.*) 1908,
 Shain, Abraham Isidor, A.B. 1909,
 Shapira, Albert Abraham, S.B. 1910,
 Sheehan, Edward Bernard, A.B. (*Boston Coll.*) 1909,
 Sisson, Mitchell, A.B. 1910,
 Stookey, Byron Polk, A.B. (*Univ. of Southern Cali-*
fornia) 1908, A.M. (*Harvard Univ.*) 1909,
 Strong, Seth Lake, A.B. (*Oberlin Coll.*) 1909,
 Ten Broeck, Carlon, A.B. (*Univ. of Illinois*) 1908,
 Terrall, John Jay, S.B. (*Cornell Coll.*) 1907,
 Towne, Edward Bancroft, A.B. 1906,
 Van Meter, Abram Lee, A.B. (*Univ. of Kansas*)
 1909,
 Walker, Melvin Harvey, Jr., A.B. (*Yale Univ.*)
 1909,
- Brookline.*
Jamaica Plain.
Boston.
Rochester, N. Y.
Fruitvale, Cal.
Dresden, O.
Norristown, Pa.
Butte, Mont.
Colorado Springs, Colo.
Brattleboro, Vt.
Tientsin, China.
Fall River.
Crete, Neb.
E. Boston.
Providence, R. I.
Boston.
Wellesley Hills.
Ross, Cal.
Lehigh, Pa.
Tehel Barood, Egypt.
Roxbury.
Boston.
Roxbury.
E. Boston.
Los Angeles, Cal.
Marshfield Hills.
Parsons, Kan.
Hudson, Ia.
San Francisco, Cal.
Parsons, Kan.
Westboro.

Warren, Charles Fletcher, PH.B. (*Brown Univ.*) 1909,

Webber, Wolfert Gerson, A.B. 1909,

Wentworth, Edward Tubbs, A.B. 1909,

Wentworth, John Alexander, A.B. (*Bowdoin Coll.*) 1909,

Wickham, Thomas William, A.B. (*Holy Cross Coll.*) 1909,

Auburn, R. I.

Boston.

Somerville.

Portland, Me.

So. Lee.

THIRD CLASS

Albee, Kenneth Field, PH.B. (*Brown Univ.*) 1910,

Alton, Benjamin Harrison, S.B. (*So. Dakota State Coll.*) 1908, S.M. (*ibid.*) 1910,

Andrews, Sumner Cheever, A.B. 1910,

Aub, Joseph Charles, A.B. 1911,

Bachman, George Warren, A.B. 1908,

Beard, Archibald Hildreth, A.B. (*Kansas Univ.*) 1910,

Bill, José Penteado, A.B. (*Dickinson Coll.*) 1907,

Binger, Carl Alfred Lanning, A.B. 1910,

Bowes, Frank Arthur, A.B. (*Holy Cross Coll.*) 1910,

Brett, Afley Leonel, A.B. (*Brown Univ.*) 1910,

Brown, Herbert Rutherford, S.B. (*Univ. of Rochester*) 1901,

Burket, Ivan Roy, A.B. (*Univ. of Kansas*) 1910, A.M. (*ibid.*) 1911,

Burpee, Benjamin Prescott, A.B. (*Dartmouth Coll.*) 1909,

Caro, Heiman, A.B. 1911 (1910),

Cheever, Austin Walter, A.B. 1910,

Cobb, Stanley, A.B. 1910,

Cohen, Joseph Powitzer, A.B. 1909,

Cook, Ward Hance, A.B. (*Univ. of Kansas*) 1909, A.M. (*ibid.*) 1910,

Cragin, Horace Stuart, S.B. (*Amherst Coll.*) 1910,

Crawford, Clay, A.B. (*Yale Univ.*) 1909,

Donovan, Jeremiah John, A.B. (*Boston Coll.*) 1900,

Durrett, James Johnson, S.B. (*Univ. of Alabama*) 1908,

Fay, William James, A.B. (*Clark Univ.*) 1910,

Fernández, Miguel Joaquin, A.B. (*Colegio Píbillos, Colombia, S. A.*) 1907,

Fiske, Cyrus Hartwell, A.B. (*Univ. of Minnesota*) 1910,

Wollaston.

Brookings, So. Dak.

Gloucester.

Cincinnati, O.

Wilkes-Barre, Pa.

La Junta, Colo.

Harrisburg, Pa.

New York, N. Y.

Waterbury, Conn.

So. Braintree.

Jamaica Plain.

Wetmore, Kan.

Manchester, N. H.

Chelsea.

Mattapan.

Milton.

Newburgh, N. Y.

Kansas City, Mo.

Brooklyn, N. Y.

Ft. Thomas, Ky.

Randolph.

Northport, Ala.

Worcester.

Mompox, Colombia, S. A.

St. Paul, Minn.

- Fornell, Carl Hernfrid, A.B. 1910,
 Foster, Thomas Albert, A.B. (*Dartmouth Coll.*)
 1910,
 Gillette, George Henry, A.B. (*Cornell Coll.*) 1910,
 Gosline, Harold Inman, A.B. 1909,
 Gray, Horace, A.B. 1909,
 Green, Hyman, A.B. 1911,
 Hanchett, Alsoberry Kaumu, A.B. 1911 (1910),
 Hill, Frederick Thayer, S.B. (*Colby Coll.*) 1910,
 Hyde, Harold Valmore, S.B. (*Dartmouth Coll.*)
 1910,
 Johnson, Harold Bartlett, A.B. 1911,
 Leavitt, Peirce Henry, S.B. 1910,
 Lehman, Edwin Partridge, A.B. (*Williams Coll.*)
 1910,
 Levine, Samuel Albert, A.B. 1911,
 Long, James Harmount, A.B. (*Ohio Wesleyan Univ.*) 1904, A.M. (*ibid.*) 1907,
 Louis, Lawrence Joseph, Jr., A.B. (*Holy Cross Coll.*) 1910,
 Lunt, Lawrence Kirby, A.B. 1909,
 Lurier, Israel, A.B. (*Clark Univ.*) 1910,
 McMahon, William Edward Roche, A.B. (*Holy Cross Coll.*) 1910,
 Marvin, Frank William, A.B. 1910,
 Millet, John Alfred Parsons, A.B. 1910,
 Moor, Henry Britt, S.B. (*Colby Coll.*) 1910,
 Morrison, Wayland Augustus, A.B. (*Leland Stanford Jr. Univ.*) 1910,
 Morrissey, John Henry, Jr., A.B. (*Brown Univ.*)
 1910,
 Munro, Donald, A.B. 1911,
 New, Way-sung, A.B. (*St. John's Coll.*) 1910,
 Ohler, William Richard, S.B. 1910,
 Packard, George Byron, Jr., A.B. (*Univ. of Colorado*) 1910,
 Richardson, Henry Barber, A.B. 1910,
 Rochford, Richard Augustine, A.B. (*Holy Cross Coll.*) 1910,
 Root, Raymond Richmond, S.B. (*Dartmouth Coll.*) 1905,
 Schofield, Roger William, A.B. (*Clark Univ.*) 1910,
- Quincy.
 Portland, Me.
 Bayport, N. Y.
 Worcester.
 Boston.
 Boston.
 Waimea, Hawaii.
 Waterville, Me.
 Lynn.
 Cattaraugus, N. Y.
 Cambridge.
 Redlands, Cal.
 Roxbury.
 Cambridge.
 Newport, R. I.
 Colorado Springs, Colo.
 Worcester.
 Worcester.
 Cambridge.
 So. Lincoln.
 Waterville, Me.
 Los Angeles, Cal.
 Bristol, R. I.
 Boston.
 Shanghai, China.
 Bethel, Conn.
 Denver, Colo.
 Boston.
 Newton Lower Falls.
 Brookline.
 Worcester.

Shohl, Alfred Theodore, A.B. 1910,
 Solomon, Harry Caesar, S.B. (*Univ. of California*)
 1910,
 Stevens, Harold Wentworth, A.B. (*Bates Coll.*)
 1906,
 Stoddard, James Leavitt, A.B. 1910,
 Vernlund, Carl Frithiof, S.B. (*So. Dakota State*
Coll.) 1909,
 Washburn, Arthur Lawrence, A.B. 1910,
 Winchester, Harold Eugene, S.B. (*Dartmouth*
Coll.) 1910,
 Withington, Paul, A.B. 1909,
 Wright, Wade Stanley, S.B. (*Univ. of Pitts-*
burgh) 1910,

Cincinnati, O.
Los Angeles, Cal.
Saco, Me.
Northampton.
Jungskola, Sweden.
New York, N. Y.
Bismarck, No. Dak.
Cambridge.
Pittsburgh, Pa.

SECOND CLASS

Allen, Edward Bartlett, A.M. (*Brown Univ.*) 1911,
 Allen, Walter Charles, S.B. (*Univ. of Rochester*)
 1911,
 Amiral, Hiram Hygazon, A.B. (*Univ. of Rochester*)
 1911,
 Appleton, Paul, PH.B. (*Brown Univ.*) 1911,
 Aschmann, Theodore Henry, A.B. (*McPherson*
Coll.) 1908, A.M. (*Univ. of Kansas*) 1911, S.M.
(ibid.) 1912,
 Babington, Vernon Edgar, A.B. (*Brown Univ.*)
 1911,
 Bock, Arlie Vernon, A.B. (*Upper Iowa Univ.*) 1910,
 Bridges, Edwin Stanley, A.B. (*Univ. of New Bruns-*
wick) 1908,
 Bronk, Marcellus, A.B. (*Cornell Univ.*) 1910,
 Brown, George Percy, A.B. (*Yale Univ.*) 1911,
 Brown, Harry Henderson, Jr., A.B. (*Univ. of*
Texas) 1910,
 Bumpus, Hermon Carey, Jr., PH.B. (*Brown Univ.*)
 1912,
 Bunker, Henry Alden, Jr., A.B. 1910,
 Caldaroni, Alfred Anthony, A.B. (*Holy Cross Coll.*)
 1911,
 Clason, Freeman Pell, A.B. (*Bates Coll.*) 1911,
 Cleaves, Edwin Nelson, A.B. 1911,
 Cline, Samuel, S.B. 1911,

Centreville, R. I.
Rochester, N. Y.
Rochester, N. Y.
Providence, R. I.
Inman, Kan.
Edgewood, R. I.
New Albin, Ia.
St. John, N. B.
Amsterdam, N. Y.
Barre.
Yoakum, Texas.
Madison, Wis.
Brooklyn, N. Y.
Providence, R. I.
Gardiner, Me.
Medford.
Roxbury.

- Cook, Edgar Charles, A.B. (*Lake Forest Coll.*) 1911, *Mendota, Ill.*
 Cummings, Edward Joseph, A.B. (*Boston Coll.*)
 1911, *So. Boston.*
 Curtin, John Francis, A.B. (*Holy Cross Coll.*) 1911, *Lawrence.*
 Devine, Bernard Francis, A.B. 1911, *So. Boston.*
 Diehl, Oliver Roland, A.B. 1912, *Newport, R. I.*
 Dolahar, John Edward, A.B. (*Boston Coll.*) 1912, *Boston.*
 Donnell, Clyde Henry, A.B. (*Howard Univ.*) 1911, *Greensboro, N. C.*
 Downing, John Godwin, A.B. (*Boston Coll.*) 1911, *So. Boston.*
 Durkin, Harry Anthony, A.B. (*Holy Cross Coll.*)
 1911, *Peoria, Ill.*
 Dwinell, George Francis, A.B. (*Dartmouth Coll.*)
 1911, *Manchester, N. H.*
 Edwards, Henry William, Jr., S.B. (*Univ. of Roch-*
ester) 1911, *Rochester, N. Y.*
 Edwards, Sumner, A.B. (*Bowdoin Coll.*) 1910, *Bethel, Me.*
 Edwards, Walter Davis, A.B. (*Univ. of Rochester*)
 1911, *Rochester, N. Y.*
 Fein, Harry, A.B. 1911, *Boston.*
 Flagg, Charles Monroe, S.B. 1905, *Cambridge.*
 Foley, John Arthur, A.B. 1911, *Dorchester.*
 G  n  reux, Edmond Alfred, A.B. (*Holy Cross Coll.*)
 1911, *Webster.*
 Gibson, Arthur Collis, A.B. (*Bowdoin Coll.*) 1911, *Jamaica Plain.*
 Gillespie, Norman Wilkinson, S.B. (*Tufts Coll.*)
 1911, *Dorchester.*
 Gillon, Charles Joseph Carroll, PH.B. (*Holy Cross*
Coll.) 1911, *Taunton.*
 Gilpatrick, Leon Southard, A.B. (*Colby Coll.*) 1909, *Hartland, Me.*
 Grabfield, Gustave Philip, A.B. (*Williams Coll.*)
 1912, *Cincinnati, O.*
 Hankey, Daniel Clyde, A.B. (*Westminster Coll.*)
 1909, *New Wilmington, Pa.*
 Hodgson, John Sprague, PH.B. (*Brown Univ.*) 1912
 (1911), *Esmond, R. I.*
 Hudson, Carl Bibb, A.B. 1912 (1911), *Montgomery, Mo.*
 Jackson, Arthur Morison, S.B. (*Dartmouth Coll.*)
 1911, *Everett.*
 Janney, James Craik, A.B. 1911, *Wynnewood, Pa.*
 Johnson, Odin James, A.B. (*Univ. of Minnesota*)
 1911, *Lyle, Minn.*
 Kibby, Sydney Vernon, A.B. 1907, *Everett.*

- Lawler, John Charles, A.B. (*Holy Cross Coll.*) 1911, *Bellows Falls, Vt.*
 McCaffrey, Jerome Joseph, A.B. (*Holy Cross Coll.*) 1911, *Attleboro.*
 McGuire, Joseph Hoshal, A.B. (*Eureka Coll.*) 1911, *Eureka, Ill.*
 MacPherson, Donald John, S.B. (*Univ. of Rochester*) 1911, *Palmyra, N. Y.*
 McQuesten, Philip, A.B. (*Dartmouth Coll.*) 1911, *Nashua, N. H.*
 Magoon, Charles Elmer, Jr., A.B. (*Morningside Coll.*) 1910, *Boston.*
 Mallory, Meredith, A.B. (*Univ. of Illinois*) 1911, *Batavia, Ill.*
 Meaker, Samuel Raynor, A.B. (*Princeton Univ.*) 1911, *Carbondale, Pa.*
 Montgomery, James Blaine, A.B. (*Dartmouth Coll.*) 1911, *Boston.*
 Montgomery, Orland Franklin, A.B. (*Leland Stanford Jr. Univ.*) 1910, *Tulare, Cal.*
 Morriss, William Sarsfield, A.B. 1911, *Fall River.*
 Murray, George Aloysius, A.B. (*Boston Coll.*) 1909, *So. Boston.*
 Oslin, Joseph Edwin, A.B. (*Brown Univ.*) 1910, *Providence, R. I.*
 Packard, Fabyan, A.B. 1912, *Allston.*
 Peck, Martin William, S.B. (*Dartmouth Coll.*) 1902, *Lynn.*
 Perkins, William Albert, A.B. 1912, *Ogden, Utah.*
 Plouffe, Bernard Louis, A.B. (*Holy Cross Coll.*) 1911, *Webster.*
 Raia, Joseph Ernest, A.B. (*Brown Univ.*) 1911, *Providence, R. I.*
 Redden, William Rufus, A.B. (*Bates Coll.*) 1906, *Hyde Park.*
 Richardson, Ira Walter, A.B. (*Colby Coll.*) 1910, *Kennebunk, Me.*
 Sharry, Charles Francis, A.B. 1910, *Somerville.*
 Sowles, Horace Kennedy, A.B. (*Clark Univ.*) 1910, *Barre, Vt.*
 Spruit, Charles Booth, A.B. (*Illinois Coll.*) 1908, *Jacksonville, Ill.*
 Stern, Neuton Samuel, A.B. 1912, *Memphis, Tenn.*
 Strauss, Arthur Edgar, S.B. 1912, *St. Louis, Mo.*
 Thaxter, Langdon Thom, A.B. (*Williams Coll.*) 1911, *Portland, Me.*
 Thomas, Harold, A.B. (*Acadia Coll.*) 1910, *Wollaston.*
 Tucker, Cassell Clark, A.B. (*De Pauw Univ.*) 1911, *Greencastle, Ind.*
 Van Gorder, George Wilson, A.B. (*Williams Coll.*) 1911, *Pittsburgh, Pa.*
 Van Stone, Leonard Mathews, A.B. (*Colorado Coll.*) 1911, *Waco, Tex.*

Woodward, Harry Whiting, A.B. (*Bowdoin Coll.*)
1910,
Wright, Louis Tompkins, A.B. (*Clark Univ.*,
Atlanta, Ga.) 1911,

Colorado Springs, Colo.

Atlanta, Ga.

FIRST CLASS

Aaronson, Jacob, A.B. 1912,
Astrin, Albert, A.B. 1911,
Barrow, William Hulbert, A.B. 1908,
Bennet, DaCosta Fitzmaurice, A.B. (*Univ. of
Maine*) 1909,
Betteridge, Lawrence Augustine, A.B. 1912,
Bigelow, George Hoyt, A.B. 1913 (1912),
Brennan, James Thomas, A.B. (*Rock Hill Coll.*)
1909,
Briggs, Maurice Taggart, A.B. 1912,
Buckman, Thomas Ellwood, A.B. 1912,
Burton, Caspar Henry, Jr., A.B. 1909,
Butler, Edmund John, A.B. (*Boston Coll.*) 1912,
Churchill, Kenneth, A.B. (*Bowdoin Coll.*) 1912,
Dillon, Edward Saunders, A.B. (*Princeton Univ.*)
1911,
Dole, Kenneth Llewellyn, A.B. (*Leland Stanford
Jr. Univ.*) 1912,
Gilbert, John Joseph, A.B. (*Brown Univ.*) 1912,
Goethals, Thomas Rodman, A.B. 1912,
Golden, Ross, A.B. (*Cornell Coll.*) 1912,
Grace, Clarence Milo, A.B. (*Washington State
Univ.*) 1912,
Gregg, Alan, A.B. 1911,
Gustafson, Paul, A.B. 1912,
Hamilton, John Homer, S.B. (*Oklahoma Agricul-
tural and Mechanical Coll.*) 1910,
Harding, Edward, A.B. 1911,
Harris, Carl Thorburn, S.B. (*Univ. of Rochester*)
1912,
Hodgdon, Frank Wellington, Jr., A.B. 1911,
Horton, Lydiard Heneage, A.B. (*Williams Coll.*)
1901, A.M. (*Columbia Univ.*) 1911,
Houston, David Walker, Jr., A.B. (*Princeton Univ.*)
1912,

Chelsea.

Boston.

Chelsea.

Lubec, Me.

Boston.

Framingham.

Clarksburg, W. Va.

E. Lynn.

Jacksonville, Fla.

Cincinnati, O.

Cambridge.

Newtonville.

Woodbury, N. J.

Riverside, Cal.

Woonsocket, R. I.

Culebra, C. Z., Panama.

Boone, Ia.

Chillicothe, Mo.

Chestnut Hill.

Cambridge.

Stillwater, Okla.

Boston.

Rochester, N. Y.

Arlington.

Boston.

Troy, N. Y.

- Hurst, Benoni Price, A.B. (*Amherst Coll.*) 1912,
 Hyman, Clarence Henry, S.B. (*Heidelberg Univ.*)
 1911,
 Koefod, Hilmar, S.B. (*Beloit Coll.*) 1911,
 Lacey, Walter Hamer, A.B. 1912,
 Langmann, Alfred Gustav, A.B. 1912,
 Lanman, Thomas Hinckley, A.B. 1912,
 Learned, Elmer Turell, A.B. (*Yale Univ.*) 1912,
 Levanzin, Agostino, A.B. (*Malta Univ.*) 1895,
 Lowry, Franklin Patterson, S.B. 1912,
 Lyon, Arthur Bates, A.B. (*Amherst Coll.*) 1912,
 McIntyre, John Archibald, S.B. (*Cornell Coll.*)
 1912,
 *Marlow, Searle Bisset (*Harvard*),
 Moffat, Barclay Wellington, A.B. 1912,
 Morris, Samuel Leslie, Jr., S.B. (*Davidson Coll.*)
 1911,
 Murphy, William David, A.B. (*Boston Coll.*)
 1911,
 Nichols, Andrew, 3d, A.B. 1912,
 Nissen, Harry Archibald, A.B. (*Univ. of So. Dakota*)
 1911,
 Oberg, Frank Thorwald, A.B. (*Clark Coll.*) 1912,
 Ouimet, Joseph Arcade, S.B. (*Laval Univ.*)
 1911,
 *Parker, Frederic, Jr. (*Harvard*),
 Peabody, Charles William, A.B. 1912,
 Putnam, James Jackson, Jr., A.B. 1912,
 Ragle, Benjamin Harrison, A.B. (*De Pauw*
Univ.) 1912,
 Rapport, David Louis, A.B. 1912,
 Redway, Lawrence David, A.B. 1912,
 Rhea, Clarence Ward, A.B. (*Austin Coll.*) 1910,
 Roberts, Bertrand Earle, A.B. 1912,
 Sargent, Arthur Forrest, A.B. (*Dartmouth Coll.*)
 1911,
 Settle, Howard Edwin, A.B. 1913 (1912),
 Smith, Francis Cullen, A.B. (*Boston Coll.*) 1909,
 Taylor, John Houghton, A.B. 1913 (1912),
 Thomasson, Aaron Hood, A.B. (*Lincoln Univ.*)
 1896,
- Baltimore, Md.
 Payne, O.
 Glenwood, Minn.
 Wollaston.
 New York, N. Y.
 Cambridge.
 Fall River,
 Cospicua, Island of Malta.
 Newton.
 Brockton.
 Mt. Vernon, Ia.
 Syracuse, N. Y.
 Orange, N. J.
 Atlanta, Ga.
 Roxbury.
 Hathorne.
 Vermillion, So. Dak.
 Worcester.
 Leominster.
 Bedford.
 Malden.
 Boston.
 Spencer, Ind.
 Pittsburgh, Pa.
 Cincinnati, O.
 Forney, Tex.
 Newton Centre.
 Pittsfield, N. H.
 Berne, N. Y.
 Somerville.
 Cambridge.
 Boston.

* Has completed work for the A.B. degree.

Tully, George Loughlin, A.B. 1912,	Milford.
Vail, Harris Holmes, A.B. (<i>Yale Univ.</i>) 1912,	Cincinnati, O.
Viets, Henry Rouse, Jr., S.B. (<i>Dartmouth Coll.</i>) 1912,	Brookline.
Waite, John Herbert, S.B. (<i>Bucknell Univ.</i>) 1911,	Lock Haven, Pa.
Weld, Stanley Burnham, A.B. (<i>Dartmouth Coll.</i>) 1912,	Winchester.
Wells, Ward Stanley, S.B. (<i>Grinnell Coll.</i>) 1909,	Nashua, Ia.
Wetherell, Bryant Davis, A.B. (<i>Williams Coll.</i>) 1912,	Holyoke.
Wilbur, George Browning, 2d, S.B. 1912,	W. Newton.
Wilder, Douglas Edwin, PH.B. (<i>Univ. of Rochester</i>) 1906, LL.B. (<i>Harvard Univ.</i>) 1909,	Cambridge.
Withington, Paul Richmond, A.B. 1912,	Boston.
Wylde, Russell Arthur, A.B. (<i>Dartmouth Coll.</i>) 1912,	Lawrence.

SPECIAL STUDENTS TAKING REGULAR WORK

Benet, George,	Columbia, S. C.
Berger, Harry Calvin, A.B. (<i>Univ. of Kansas</i>) 1912,	Halstead, Kan.
Calvin, Claudius Virgil,	Meadville, Pa.
Grannis, Irving Van Vliet, S.B. (<i>Univ. of Wisconsin</i>) 1912,	Menomonie, Wis.
Hatch, Floyd Frost, A.B. (<i>Univ. of Utah</i>) 1912,	Heber City, Utah.
Jackson, George Henry, Jr.	Newtonville.
Jones, Merritt La Count, S.B. (<i>Univ. of Wisconsin</i>) 1912,	Wausau, Wis.
Kerr, William John, S.B. (<i>Univ. of California</i>) 1912,	Los Angeles, Cal.
McCormick, Charles Owen, A.B. (<i>Indiana Univ.</i>) 1911,	Lafayette, Ind.
Markey, Edward Bond, M.D. (<i>Cornell Univ.</i>) 1906,	Dayton, O.
Meserve, Edwin Alonzo,	Allston.
O'Donnell, John Joseph, Jr.	E. Boston.
Petersen, Marius Smith, S.B. (<i>Univ. of Wisconsin</i>) 1910,	Milwaukee, Wis.
Ricci, James Vincent,	Providence, R. I.
Robertson, Oswald Hope, S.B. (<i>Univ. of California</i>) 1910,	Berkeley, Cal.

Shannon, William Lloyd, A.B. (*McGill Univ.*)

1909, M.D., C.M. (*ibid.*) 1911,

Shortell, Joseph Henry,

Williamson, Alexander Hamilton, S.B. (*Univ. of California*) 1911,

Vancouver, B. C.

Salem.

Pasadena, Cal.

GRADUATES OF COLLEGES

Acadia College	1	Laval University	1
University of Alabama	1	Leland Stanford Jr. University	4
Amherst College	4	Lincoln University	1
Anatolia College	1	McGill University	1
Assiout College (Egypt)	1	McPherson College	1
Austin College	1	Malta University	1
Bates College	7	University of Minnesota	3
Boston College	9	Morningside College	1
Bowdoin College	5	Mt. Allison College	1
Brown University	14	Muhlenburg College	1
Beloit College	1	University of Nebraska	1
Bucknell University	1	University of New Brunswick	1
University of California	5	Oberlin College	1
Clark University	5	Ohio University	1
Clark College	2	Ohio Wesleyan University	1
Colby College	2	Oklahoma Agricultural and Mechanical College	1
Colorado College	4	Colegio Pinillos (Colombia, S. A.)	1
University of Colorado	1	University of Pittsburgh	1
Columbia University	2	Princeton University	3
Cornell College	5	University of Rochester	9
Cornell University	2	Rock Hill College	1
Imperial Medical College of China	1	St. John's College	1
Dartmouth College	15	So. Dakota State College	2
Davidson College	1	University of So. Dakota	1
De Pauw University	3	University of Texas	1
Dickinson College	1	Tufts College	1
Doane College	1	University of Southern California	1
Eureka College	1	Ursinus College	1
Georgetown University	1	University of Utah	1
Grinnell College	1	Washington State University	1
Harvard University	97	Williams College	6
Heidelberg University	1	University of Wisconsin	4
Holy Cross College	1	Yale University	8
Howard University	14	Total	289
Illinois College	1	Counted more than once	7
University of Illinois	1	Total Number College Graduates	282
Indiana University	2	Number of Colleges	74
Upper Iowa University	1		
University of Kansas	1		
Lafayette College	6		
Lake Forest College	1		

COURSES FOR GRADUATES

(October 1, 1911, to June 1, 1912)

Allen, Bradford, S.B. (<i>Amherst Coll.</i>) 1878, M.D. (<i>Harvard Univ.</i>) 1883, L.M. (<i>Univ. of Dublin</i>) 1883,	Nashua, N.H.
Allen, Granville Stevens, M.D. (<i>Bellevue Hosp. Med.</i> <i>Coll.</i>) 1894,	Lawrence.
Allen, William Howard, A.B. 1891, M.D. 1894,	Mansfield.
Anderson, S Wilhelm, M.D. (<i>Univ. of Minnesota</i>) 1903,	Warren, Minn.
Anthony, George Chenery, M.D. (<i>Boston Univ.</i> <i>Sch. of Med.</i>) 1904,	Wellesley.
Arnold, Hannah Helen,	Boston.
Barden, George Rice, M.D. (<i>Bellevue Hosp. Med.</i> <i>Coll.</i>) 1896,	Providence, R.I.
Barnes, James Arthur, A.B. (<i>Holy Cross Coll.</i>) 1895, M.D. (<i>Harvard Univ.</i>) 1900,	Worcester.
Bartlett, Charles Watson, M.D. (<i>Coll. of Phys. and</i> <i>Surg., New York</i>) 1889,	Marshfield.
Battershall, Mary H. Wolfenden, M.D. (<i>Woman's</i> <i>Med. Coll. of Pennsylvania</i>) 1879,	Attleboro.
Berry, William Christopher, M.D. (<i>Tufts Med. Sch.</i>) 1907,	Jamaica Plain.
Bliss, William Everett, M.D. (<i>Illinois Univ. Med.</i> <i>Sch.</i>) 1906,	Melrose.
Bond, Earl Danford, A.B. 1900, M.D. 1908,	Waverley.
Bond, Sarah Adams, M.D. (<i>Woman's Med. Coll. of</i> <i>Pennsylvania</i>) 1891,	Jamaica Plain.
Bosworth, Alfred Willson, S.B. (<i>Rhode Island State</i> <i>Coll.</i>) 1899,	Brookline.
Boutelle, Harry Clifton, M.D. 1899,	Danvers.
Breslin, John George, A.B. 1908, M.D. 1911,	Charlestown.
Bresnahan, John Francis, M.D. (<i>Univ. of Pennsyl-</i> <i>vania</i>) 1910,	Boston.
Brown, Daniel Eugene, M.D. (<i>Hahnemann Med.</i> <i>Coll., Philadelphia</i>) 1886,	Brockton.
Brown, Ernest William, PH.B. (<i>Yale Univ.</i>) 1897, PH.D. (<i>ibid.</i>) 1900, M.D. (<i>George Washington</i> <i>Univ.</i>) 1906,	Wollaston.
Bryant, John Edmund, M.D. (<i>Dartmouth Med. Sch.</i>) 1901,	Haverhill.
Bryant, Owen, A.B. 1904,	Cohasset.

- Buffum, Herbert Edwin, M.D. 1897,
 Bullard, Marguerite Jane, A.B. (*Cornell Univ.*) 1902,
 M.D. (*ibid.*) 1904,
 Burgess, Charles James, M.D. (*Tufts Med. Sch.*) 1898,
 Burney, Robert Hickman, B.S. (*Univ. of Missouri*)
 1895, M.D. (*Univ. Med. Coll., Missouri*) 1901,
 Burpee, Carroll Colby, M.D. (*Boston Univ. Sch. of*
Med.) 1896,
 Butler, William Hodnett, M.D. (*Bellevue Hosp.*
Med. Coll.) 1897,
 Butterfield, George Kittredge, M.D. (*Tufts Med.*
Sch.) 1903,
 Clark, Colin Reed, M.D. (*Univ. of Pennsylvania*)
 1895,
 Clark, Edward James, M.D. (*Dartmouth Med. Sch.*)
 1901,
 Coburn, Fordyce, M.D. 1903,
 Coffin, Frank Herbert, M.D. (*Boston Univ. Sch. of*
Med.) 1900,
 Conant, Harry Weston,
 Constans, Frank Elmore, M.D. (*Hahnemann Med.*
Coll., Philadelphia) 1889,
 Crossman, Edgar Orin, M.D. (*Univ. of Vermont*)
 1887,
 Cummins, Loretta Joy, M.D. (*Tufts Med. Sch.*) 1903,
 Curtin, Charles Lester, M.D. (*Yale Univ.*) 1903,
 Curtis, William Goodwin, M.D. (*Bellevue Hosp.*
Med. Coll.) 1906,
 Cutler, James Tucker, A.B. (*Williams Coll.*) 1890,
 M.D. (*Harvard Univ.*) 1894,
 Daly, Timothy Joseph, M.D. 1897,
 Dearborn, Sam Starrett, A.B. 1894, M.D. 1898,
 Denig, Blanche Alpine, M.D. (*Woman's Med. Sch.,*
Chicago) 1891,
 Devere, Frederick Hewitt, M.D. (*Univ. of Vermont*)
 1898,
 Dodge, Ralph Oscar, M.D. (*Boston Univ. Sch. of*
Med.) 1910,
 Donaldson, James Frank, A.B. (*Tufts Coll.*) 1898,
 M.D. (*Harvard Univ.*) 1902,
 Doubleday, Charles Everett, M.D. (*Syracuse Univ.*)
 1887,
- Somerville.
 Putnam, Conn.
 Lawrence.
 Kansas City, Mo.
 Malden.
 Fall River.
 Taunton.
 Youngstown, O.
 Lowell.
 Lowell.
 Haverhill.
 Cambridge.
 Brockton.
 Lisbon, N.H.
 Allston.
 Manchester, N.H.
 Wollaston.
 Roxbury.
 Lawrence.
 Nashua, N.H.
 Boston.
 Sterling.
 Hyde Park.
 Salem.
 Penn Yan, N.Y.

Driscoll, Daniel, M.D. (<i>Med. Sch. of Maine</i>) 1885,	Portland, Me.
Dunbar, Ruth, A.B. (<i>Smith Coll.</i>) 1908,	Brookline.
Dutton, Richard, A.B. 1898, M.D. 1901,	Wakefield.
Eastman, Eugene Bruce, M.D., C.M. (<i>McGill Univ.</i>) 1902,	Portsmouth, N.H.
Ellis, William Alonzo,	Essex.
Emmons, Arthur Brewster, 2d, A.B. 1898, M.D. 1902,	Boston.
Fisher, Carl, S.B. (<i>Carleton Coll.</i>) 1901, M.D. (<i>Harvard Univ.</i>) 1905,	Rochester, Minn.
Flynn, John Joseph, M.D. (<i>Bellevue Hosp. Med. Coll.</i>) 1898,	Worcester.
Ford, Daniel Frank, M.D. (<i>Bellevue Hosp. Med. Coll.</i>) 1881,	Boston.
Fox, Ralph Deems, A.B. (<i>Illinois Wesleyan Univ.</i>) 1899, M.D. (<i>Univ. of Michigan</i>) 1903,	Bloomington, Ill.
Furlong, Francis Mohun, M.D. (<i>Univ. of Georgetown</i>) 1895,	Chelsea.
Gifford, John Pearl, A.B. (<i>Dartmouth Coll.</i>) 1894, M.D. (<i>ibid.</i>) 1897,	Randolph, Vt.
Gillette, Edwin Johnson, A.B. (<i>Williams Coll.</i>) 1888, M.D. (<i>Univ. of Pennsylvania</i>) 1891,	Phoenix, Ariz.
Good, Barton Lester, M.D. (<i>Hahnemann Med. Coll., Illinois</i>) 1904,	Van Wert, O.
Gourley, George Foster, M.D. (<i>Ohio Med. Univ.</i>) 1903,	Columbus, O.
Grant, William Victor, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1902,	Lawrence.
Hagerty, Joseph James, M.D. 1905,	Norwood.
Haight, Harry William, A.B. (<i>Princeton Univ.</i>) 1907, M.D. (<i>Harvard Univ.</i>) 1912,	Mendota, Ill.
Hamilton, Annie Lee, M.D. (<i>Woman's Med. Coll., N.Y. Infirmary</i>) 1898,	Boston.
Hannaford, Charles William, M.D. (<i>Tufts Med. Sch.</i>) 1900,	Portsmouth, N.H.
Hanson, William Greene, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1878,	Everett.
Harkins, William Joseph, M.D. (<i>Univ. of Vermont</i>) 1911,	Quincy.
Harnett, Edward Henry Lewis, A.B. (<i>St. Ann's Coll.</i>) 1905, M.D. (<i>Tufts Med. Sch.</i>) 1910,	Dorchester.
Harriman, Cora Elizabeth, M.D. (<i>Tufts Med. Sch.</i>) 1902,	Framingham.

- Hart, Arthur Orrin, M.D. (*Michigan Coll. of Med. and Surg.*) 1894, Maple Rapids, Mich.
- Hart, Eugene, M.D. (*Michigan Coll. of Med. and Surg.*) 1894, Eureka, Mich.
- Heilman, Ernest Samuel, M.D. (*Univ. of Illinois*) 1902, Ida Grove, Ia.
- Hibben, Freeman Hart, M.D. (*Indiana Med. Coll.*) 1905, Indianapolis, Ind.
- Hobart, Mary Forrester, M.D. (*Woman's Med. Coll., N.Y. Infirmary*) 1884, Boston.
- Holmes, May Salona, M.D. (*Woman's Med. Coll., N.Y. Infirmary*) 1895, Worcester.
- Houser, Mary Estella, M.D. (*Howard Univ.*) 1907, Washington, D.C.
- Howard, Arthur Allison, PH.B. (*Brown Univ.*) 1905, Boston.
- M.D. (*Harvard Univ.*) 1909, Haverhill.
- Hubbell, Adelbert Merton, M.D. (*Boston Univ. Sch. of Med.*) 1889, Los Angeles, Cal.
- Hunter, George Graham, S.B. (*Univ. of California*) 1901, M.D. (*ibid.*) 1906, Somerville.
- Ingraham, Elizabeth, M.D. (*Tufts Med. Sch.*) 1900, Boston.
- Irving, Frederick Carpenter, A.B. 1906, M.D. 1910, Boston.
- Irwin, Archer, M.D., C.M. (*Dalhousie Univ.*) 1892, Hakalau, Hawaii.
- Jack, Lewis Harlow, M.D. 1899, W. Newton.
- Jackson, Ralph Wentworth, A.B. (*Brown Univ.*) 1889, M.D. (*Long Island Coll. Hosp.*) 1892, Fall River.
- Jones, Arthur Thomas, M.D. (*Univ. of New York*) 1896, Providence, R.I.
- Jones, William Marks, A.B. 1890, M.D. 1893, Lowell.
- Joslyn, Arthur Everett, S.B. (*Northwestern Univ.*) 1903, A.M. (*Harvard Univ.*) 1904, M.D. (*ibid.*) 1911, Lynn.
- Keith, Avis Muna, M.D. (*Ensworth Med. Coll.*) 1892, Worcester.
- Kelly, Michael, A.B. (*Holy Cross Coll.*) 1879, M.D. (*Bellevue Hosp. Med. Coll.*) 1885, A.M. (*Holy Cross Coll.*) 1896, Fall River.
- Knowles, Robert Keneborough Black, A.B. (*Acadia Coll.*) 1897, M.D. (*Harvard Univ.*) 1902, Gloucester.
- Lane, Jennie Theodate Miner, M.D. (*Boston Univ. Sch. of Med.*) 1896, Worcester.
- Lawrence, Joseph Henry, M.D. (*Bellevue Hosp. Med. Coll.*) 1892, Brockton.
- Learned, William Turell, A.B. (*Brown Univ.*) 1882, Fall River.
- M.D. (*Univ. of Pennsylvania*) 1885, A.M. (*Brown Univ.*) 1885,

- Lightbody, William Russell, PH.B. (*Brown Univ.*)
1906, M.D. (*Harvard Univ.*) 1910, Manchester.
- Lynch, William Francis, A.B. (*Georgetown Univ.*)
1904, M.D. (*Harvard Univ.*) 1908, Worcester.
- MacCabe, Arthur, M.D. (*Queen's Univ.*) 1897, Gloucester.
- McCarthy, Francis Patrick, M.D. (*Tufts Med. Sch.*)
1905, Mattapan.
- McCleave, Thomas Croke, M.D. (*Cooper Med. Coll.*)
1896, Berkeley, Cal.
- Macdonald, John Clyde, M.D., C.M. (*Dalhousie Univ.*) 1895, Everett.
- McEvoy, George Albert, M.D. (*Harvard Univ.*) 1899, Dorchester.
- McLachlan, Donald Cattanach, M.D., C.M. (*McGill Univ.*) 1904, Greenland, N.H.
- McLean, John Allan, M.D. 1904, W. Somerville.
- Mahoney, Joseph John, M.D. (*Univ. of Colorado*)
1907, Denver, Colo.
- Matulaitis, Francis, M.D. (*Baltimore Med. Coll.*)
1907, Plymouth, Pa.
- May, John Bichard, CH.B. (*Boston Univ.*) 1903,
M.D. (*ibid.*) 1904, Waban.
- Merritt, Louis Arthur, M.D. (*Med. Sch. of Maine*)
1893, Campello.
- Morgan, Charles Russell, M.D. (*Tufts Med. Sch.*)
1907, Boston.
- Morgan, Richard Jeffries, M.D. (*Jefferson Med. Coll.*) 1890, Van Wert, O.
- Morrison, Robert Mehard, M.D. (*Western Univ. of Pennsylvania*) 1895, Youngstown, O.
- O'Hare, James Patrick, A.B. 1908, M.D. 1911, Milton.
- O'Leary, Joseph Augustus, M.D. (*Boston Univ. Sch. of Med.*) 1887, Wakefield.
- Oliver, Everard Lawrence, M.D. (*Harvard Univ.*)
1904, Brockton.
- O'Toole, Stephen, D.V.M. (*Ohio State Univ.*) 1908, Shawnee, O.
- Parker, Harold Francis, M.D. (*Tufts Med. Sch.*)
1909, Watertown.
- Patch, Arthur Lionel, A.B. (*Brown Univ.*) 1904,
M.D. (*Harvard Univ.*) 1909, Stoneham.
- Pease, Frank David, M.D. (*Jefferson Med. Coll.*)
1893, Missoula, Mont.
- Peterson, John Adna, M.D. (*Univ. of Vermont*) 1896, Hingham Centre.

- Pratt, Edwin Francis, A.B. (*Bowdoin Coll.*) 1897,
M.D. (*Med. Sch. of Maine*) 1900, Portland, Me.
- Prenn, Joseph, M.D. (*Tufts Med. Sch.*) 1908, Boston.
- Pulsifer, Walter Hall, M.D. (*Tufts Med. Sch.*) 1908, Whitman.
- Randall, George Merrill, M.D. (*Bowdoin Coll.*) 1889, Lowell.
- Redmond, Thomas Henry, M.D. (*Baltimore Med. Coll.*) 1897, Lawrence.
- Reed, Marvin Warren, A.B. (*Franklin and Marshall Coll.*) 1900, A.M. (*ibid.*) 1903, M.D. (*Jefferson Med. Coll.*) 1903, Alexandria, Pa.
- Remington, John Alfred, M.D. (*Bellevue Hosp. Med. Coll.*) 1891, Central Falls, R.I.
- Rice, Henry William, A.B. (*Univ. of South Carolina*) 1893, M.D. (*Med. Coll. of South Carolina*) 1896, Columbia, S.C.
- Richardson, Henry Barber, A.B. 1910, Boston.
- Roberts, Isaac Lincoln, A.B. (*Selma Univ.*) 1890, Boston.
- M.D. (*Leonard Med. Sch.*) 1894, Worcester.
- Rochette, Edward Charles, M.D. 1903, Cambridge.
- Sennott, John Ralph, M.D. 1902, Boston.
- Seymour, Malcolm, M.D. 1904, Boston.
- Shapira, Victor Isaiah, M.D. (*Baltimore Univ. Sch. of Med.*) 1905, Boston.
- Small, Amos Elwyn, M.D. (*Med. Sch. of Maine*) 1895, Winter Harbor, Me.
- Smith, Hervey Lewis, M.D. 1903, Springfield.
- Smith, John Jay, M.D. (*Howard Univ.*) 1908, Cambridge.
- Smith, Myrtle, M.D. (*Tufts Med. Sch.*) 1905, Worcester.
- Spaulding, Edith Rogers, M.D. (*Tufts Med. Sch.*) 1909, Stonybrook.
- Spitz, Gertrude Theresa, A.B. (*Radcliffe Coll.*) 1907, Brookline.
- Spoon, Yan, Boston.
- Stamp, Harley, A.B. (*Mt. Union Coll.*) 1896, A.M. Alliance, O.
- (*ibid.*) 1903, Medina, O.
- Stanley, William Alexander, M.D. (*Cleveland Med. Coll.*) 1895, Boston.
- Stanwood, Frederic Arthur, A.B. (*Bowdoin Coll.*) 1902, M.D. (*Harvard Univ.*) 1907, E. Boston.
- Strong, James Henry, M.D. 1892, Rutland, Vt.
- Strobell, Charles William, M.D. (*Univ. of Vermont*) 1882, Brockton.
- Sullivan, Andrew Joseph, M.D. (*Tufts Med. Sch.*) 1909,

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|---|------------------|
| Sumner, James Batcheller, A.B. 1910, | Canton Junction. |
| Swaim, Loring Tiffany, A.B. 1905, M.D. 1909, | Cambridge. |
| Taylor, Joseph, M.D. (<i>Dartmouth Med. Sch.</i>) 1893, | Manchester, N.H. |
| Tenney, William Northend, M.D. 1895, | Canton. |
| Turner, Edward Lincoln Dwight, | Providence, R.I. |
| Tuttle, Schuyler Simpson, M.D. (<i>Rush Med. Coll.</i>) | |
| 1893, | Van Wert, O. |
| Warren, Alva Harding, M.D. 1900, | Everett. |
| Warden, Frank Ryan, M.D. (<i>Coll. of Phys. and</i> | |
| <i>Surg., Baltimore</i>) 1889, | Newport, R.I. |
| Westcott, Clement Plummer, M.D. (<i>Tufts Med.</i> | |
| <i>Sch.</i>) 1909, | Woodfords, Me |
| Weston, Henry Reuben, A.B. (<i>Dartmouth Coll.</i>) | |
| 1900, M.D. (<i>Bellevue Hosp. Med. Coll.</i>) 1903, | Windsor, Vt. |

THE SUMMER SCHOOL OF MEDICINE

(June 1 to October 1, 1912)

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|---|---|
| <p>Albee, Kenneth Field, PH.B. (<i>Brown Univ.</i>) 1910,
 Alderdyce, William Wesley, M.D. (<i>Toledo Med. Coll.</i>) 1900,
 Anderson, Isadore, A.B. (<i>Univ. of Missouri</i>) 1904,
 M.D. (<i>ibid.</i>) 1909,
 Andrews, Sumner Cheever, A.B. 1910,
 Baldwin, John Cook, S.B. (<i>Hamilton Coll.</i>) 1910,
 Barnes, William Samuel, PH.B. (<i>Yale Univ.</i>) 1895,
 M.D. (<i>ibid.</i>) 1897,
 Beard, Archibald Hildreth, A.B. (<i>Univ. of Kansas</i>) 1912,
 Bennett, Adolphus Bogardus, Jr., M.D. (<i>Columbian Univ.</i>) 1901,
 Berger, Harry Calvin, A.B. (<i>Univ. of Kansas</i>) 1912,
 Bernstein, Harry Saul, A.B. 1904, M.D. 1908,
 Binkley, Roy Spitler, M.D. (<i>Starling Ohio Med. Coll.</i>) 1911,
 Bitzer, Emory West, M.D. (<i>Univ. of Virginia</i>) 1903, A.B. (<i>Washington and Lee Univ.</i>) 1907,
 Blanchard, Howard Everett, M.D. (<i>Jefferson Med. Coll.</i>) 1905,
 Bond, Sterling Price, M.D. (<i>Univ. of Arkansas</i>) 1912,
 Brennan, James Thomas, A.B. (<i>Rock Hill Coll.</i>) 1909,
 Brigham, Francis Gorham, S.B. (<i>Colgate Univ.</i>) 1905, M.D. (<i>Harvard Univ.</i>) 1909,
 Brougham, Edward Jones, M.D. (<i>Northwestern Univ.</i>) 1887,
 Buchanan, John Ure, M.D. (<i>Univ. of Pennsylvania</i>) 1911,
 Budlong, Martin Salisbury, A.B. (<i>Brown Univ.</i>) 1890, A.M. (<i>ibid.</i>) 1892, M.D. (<i>Hahnemann Med. Coll., Philadelphia</i>) 1895,
 Bumpus, Hermon Carey, Jr., PH.B. (<i>Brown Univ.</i>) 1912,
 Butler, Patrick Francis, M.D. 1903,
 Callen, Russell, M.D. (<i>Tulane Univ.</i>) 1903,</p> | <p><i>Wollaston.</i>

 <i>Toledo, O.</i>

 <i>Kansas City, Mo.</i>
 <i>Gloucester.</i>
 <i>Brooklyn, N. Y.</i>

 <i>New Haven, Conn.</i>

 <i>La Junta, Colo.</i>

 <i>Washington, D. C.</i>
 <i>Halstead, Kan.</i>
 <i>Roxbury.</i>

 <i>Columbus, O.</i>

 <i>Tampa, Fla.</i>

 <i>Providence, R. I.</i>
 <i>Little Rock, Ark.</i>

 <i>Clarksburg, W. Va.</i>

 <i>Boston.</i>

 <i>Chicago, Ill.</i>

 <i>Youngstown, O.</i>

 <i>Providence, R. I.</i>

 <i>Madison, Wis.</i>
 <i>Dorchester.</i>
 <i>Birmingham, Ala.</i></p> |
|---|---|

- Calloway, Arthur William, M.D. (*Chicago Homeopathic Med. Coll.*) 1895, Asheville, N. C.
- Cartin, Harry James, M.D. (*Jefferson Med. Coll.*) 1901, Johnstown, Pa.
- Caton, Russell Jay, Columbus, O.
- Chatterjee, Atal Chaud, (*The Central Hindu Coll., Benares, India*) 1908, Calcutta, India.
- Cheever, Austin Walter, A.B. 1910, Mattapan.
- Cherrington, John Summerfield, M.D. (*Starling Ohio Med. Coll.*) 1897, Logan, O.
- Clarke, Harry Carver, M.D. 1910, Lynn.
- Clemens, Clayton Roy, Winchester.
- Clement, Lucian Orulle, S.B. (*Univ. of Minnesota*) 1899, M.D. (*ibid.*) 1902, Rocky Hill, N. J.
- Cohen, Joseph Powitzer, A.B. 1909, Newburgh, N. Y.
- Cook, Ward Hance, A.B. (*Univ. of Kansas*) 1909, A.M. (*ibid.*) 1910, Kansas City, Mo.
- Cornell, William Paterson, M.D. (*Med. Coll. of the State of South Carolina*) 1898, Charleston, S. C.
- Cushing, Herbert Howard, M.D. (*Königliche Bayr. Ludwig-Maximilian Universität, Munich*) 1898, M.D. (*Jefferson Med. Coll.*) 1899, Philadelphia, Pa.
- Cutler, Charles Newton, M.D. 1898, Chelsea.
- Daly, Timothy Joseph, M.D. 1897, Lawrence.
- Das, Premananda, PH.C. (*Univ. of Michigan*) 1911, S.M. (*ibid.*) 1912, Calcutta, India.
- Davidson, William Ruston, S.B. (*Wabash Coll.*) 1896, M.D. (*Rush Med. Coll.*) 1899, Evansville, Ind.
- Davis, Minot Flagg, M.D. (*Univ. of the South*) 1901, Boston.
- Dean, John McHale, M.D. (*Washington Univ.*) 1896, St. Louis, Mo.
- Dearborn, Henry Follansby, M.D., C.M. (*McGill Univ.*) 1907, Lawrence.
- Denny, Francis Parkman, A.B. 1891, M.D. 1895, Brookline.
- Dodd, Verne Adams, M.D. (*Ohio Med. Coll.*) 1903, Columbus, O.
- Dodge, Frederick Wilder, M.D. (*Boston Univ. Med. School*) 1891, Hyde Park.
- Dooley, Marion Sylvester, A.B. (*Univ. of Missouri*) 1907, Syracuse, N. Y.
- Doubleday, Charles Everett, M.D. (*Syracuse Univ.*) 1897, Penn Yan, N. Y.

- Dugdale, Allison Harold, S.B. (*Univ. of Nebraska*) 1911,
Omaha, Neb.
- Durrett, James Johnson, S.B. (*Univ. of Alabama*) 1908, S.M. (*ibid.*) 1909, PH.G. (*ibid.*) 1910,
Northport, Ala.
- Dwyer, John Edward, Jr., M.D. (*Tufts Med. School*) 1911,
Cambridge.
- Eames, Anna Lucille,
Evanston, Ill.
- Elebash, Clarence Couch, M.D. (*Tulane Univ.*) 1909,
Selma, Ala.
- Eversole, George Edwin, A.B. 1907,
Buigen, Wash.
- Eyerly, Tema Leclerc, A.B. (*Univ. of Kansas*) 1905,
A.M. (*ibid.*) 1909,
Nortonville, Kan.
- Farr, Clifford Bailey, A.B. (*Haverford Coll.*) 1894,
M.D. (*Univ. of Pennsylvania*) 1898,
Philadelphia, Pa.
- Fauster, John Ullrich, M.D. (*Toledo Med. Coll.*) 1897,
Paulding, O.
- Fayerweather, Roades, A.B. (*Harvard Univ.*) 1899,
M.D. (*Johns Hopkins Univ.*) 1903,
Baltimore, Md.
- Fernández, Miguel Joaquin, A.B. (*Colegio Penillos, Mompox, Colombia, S.A.*) 1907,
Mompox, Colombia, S.A.
- Field, William Hill, M.D. (*Univ. of Pennsylvania*) 1898,
Evansville, Ind.
- Fishman, Harry,
Cambridge.
- Forman, Jonathan, A.B. (*Ohio State Univ.*) 1910,
Columbus, O.
- Fornell, Carl Hernfrid, A.B. 1910,
Quincy.
- Foss, John William, M.D. 1899,
Phoenix, Ariz.
- Friedman, Nachem, M.D. (*Tufts Med. Sch.*) 1909,
Boston.
- Gageby, Lenore Hamilton, M.D. (*Woman's Med. Coll. of Pennsylvania*) 1901,
Newcastle, Pa.
- Gallagher, John Charles, M.D. (*Medico Chirurgical Coll., Philadelphia*) 1908,
Shenandoah, Pa.
- Gardner, William Edwin, A.B. (*Univ. of Pittsburgh*) 1909,
Pittsburgh, Pa.
- Garhart, Manch Neville,
Columbus, O.
- Garner, Albert Rowland, S.B. (*Bucknell Univ.*) 1899, S.M. (*ibid.*) 1903, M.D. (*Hahnemann Med. Coll.*) 1902,
Morristown, Pa.
- Gillette, George Henry, A.B. (*Cornell Coll.*) 1910,
Bayport, N. Y.
- Gourley, Harry Robert, M.D. (*Ohio Med. Coll.*) 1902,
Punxsutawney, Pa.
- Gray, Horace, A.B. 1909,
Boston.
- Grisier, Otto Woodson, A.B. (*Indiana Univ.*) 1910,
Columbia City, Ind.
- Guerrant, Edward Putney,
Wilmore, Ky.

- Hagerman, David Benjamin,
Hall, Mabel Goodwin,
Hambrook, Augustus Joseph, M.D. (*Albany Med. Coll.*) 1907,
Hamilton, Burke Coonley, S.B. (*Syracuse Univ.*) 1903, M.D. (*ibid.*) 1906,
Hancock, Albert William, M.D. 1904,
Hardin, Avell Duncan, M.D. (*Baylor Univ.*) 1909,
Harper, William Heston, M.D. (*Ohio Med. Coll.*) 1901,
Harper, William Wade, M.D. (*Tulane Univ.*) 1891,
Harris, Arthur Buckner, M.D. (*Univ. of Virginia*) 1902,
Harris, Isaac Burt, M.D. (*Starling Ohio Med. Coll.*) 1900,
Harrison, William Groce, S.B. (*Alabama Polytechnic Inst.*) 1890, M.D. (*Univ. of Maryland*) 1893,
Hatch, Floyd Frost, A.B. (*Univ. of Utah*) 1912,
Hayman, Stuart Roberts,
Hayward, Harrison Henry, M.D. (*Univ. of Vermont*) 1900,
Held, Charles Edward, M.D. (*Western Reserve Univ.*) 1898,
Higgins, Harold Leonard, A.B. 1907,
Higgins, Montgomery, M.D. (*Columbian Univ.*) 1904,
Hills, Laura Heath, M.D. (*Woman's Med. Coll. of Pennsylvania*) 1896,
Hollrigl, Joseph,
Horton, Elmer Grant, S.B. (*Cornell Univ.*) 1892, M.D. (*Starling Ohio Med. Coll.*) 1906,
Hosley, Walter Alexis, A.B. 1900, M.D. 1904,
Howard, Frederic Hollis, M.D. (*Univ. of Pennsylvania*) 1898,.
Hunter, James Wilson, Jr., S.B. (*Univ. of Virginia*) 1899, S.M. (*ibid.*) 1899, M.D. (*ibid.*) 1901,
Hyde, Harold Valmore, B.S. (*Dartmouth Coll.*) 1910,
Judd, Orange King, M.D. (*Univ. of Arkansas*) 1905,
Karshner, Clyde Fenworth, A.B. (*Univ. of Michigan*) 1905, M.D. (*ibid.*) 1908,
Kazanjan, Morris Nerses, A.B. (*Central Turkey Coll.*) 1902,
Wanseeon, O.
Augusta, Me.
Troy, N. Y.
Goshen, N. Y.
Lawrence.
Dallas, Tex.
Columbus, O.
Selma, Ala.
Birmingham, Ala.
Columbus, O.
Birmingham, Ala.
Heber City, Utah.
Brookline.
Randolph, Vt.
Akron, O.
E. Saugus.
Washington, D. C.
Williamantic, Conn.
Cambridge.
Columbus, O.
Springfield.
Williamstown.
Norfolk, Va.
Lynn.
Little Rock, Ark.
Big Rapids, Mich.
Somerville.

- Keller, Charles,
 Ketchum, Wesley Harrington, M.D. (*Cleveland Homeopathic Med. Coll.*) 1904,
 King, Thomas Byron, A.B. (*Emory Coll.*) 1907,
 M.D. (*Atlanta Sch. of Med.*) 1911,
 Kleinpell, Henry Herman, M.D. (*Rush Med. Coll.*) 1900,
 Kurth, Gustave Emil, M.D. 1901,
 Lachaine, Edmond, M.D. (*Laval Univ.*) 1904,
 Leavitt, Peirce Henry, S.B. 1910,
 Lehman, Edwin Partridge, A.B. (*Williams Coll.*) 1910,
 Levi, Morton Paul,
 Lockwood, Cyrenus Bruce, M.D. (*Univ. of Michigan*) 1912,
 Long, James Harmount, A.B. (*Ohio Wesleyan Univ.*) 1904, A.M. (*ibid.*) 1907,
 Lunt, Laurence Kirby, A.B. 1909,
 Lupien, Henry John, M.D. (*Tufts Med. Sch.*) 1908,
 Lyman, Henry, A.B. 1901, M.D. 1912,
 McCall, Daniel Thompson, A.B. (*State Univ. of Alabama*) 1887, M.D. (*Louisville Med. Coll.*) 1894,
 McConagha, Arthur Blanchard, A.B. (*Muskingum Coll.*) 1905, M.D. (*Starling Ohio Med. Coll.*) 1909,
 McGinn, Arthur Francis, A.B. (*Brown Univ.*) 1892, M.D. (*Columbia Univ.*) 1895,
 McGuire, Joseph Hoshal, A.B. (*Eureka Coll.*) 1911,
 McInnis, Millie Maurice,
 McKay, Roy Hayman, M.D. (*Univ. of Cincinnati*) 1906,
 McKeage, Robert Burns, M.D. (*Medico Chirurgical Coll.*) 1893,
 Magoon, Charles Elmer, Jr., A.B. (*Morningside Coll.*) 1910,
 Mahoney, John Lewis, M.D. (*Boston Univ. Sch. of Med.*) 1898,
 Mangum, Charles Staples, A.B. (*Univ. of North Carolina*) 1891, M.D. (*Jefferson Med. Coll.*) 1894,
 Marshall, Fremont MaKensie, M.D. (*Western Reserve Univ.*) 1889,
 Martin, Ann Louise, S.B. (*Univ. of California*) 1908,
- St. Louis, Mo.*
Lisbon, O.
Sandersville, Ga.
Chicago, Ill.
Lawrence.
Hinsdale, N. H.
Cambridge.
Redlands, Cal.
Cincinnati, O.
Detroit, Mich.
Cambridge.
Colorado Springs, Colo.
Brockton.
Ponkapoag.
Mobile, Ala.
Ashley, O.
Providence, R. I.
Eureka, Ill.
Memphis, Tenn.
Akron, O.
Scranton, Pa.
Sioux City, Ia.
Boston.
Chapel Hill, N. C.
Coshocton, O.
Berkeley, Cal.

- Marvin, Frank William, A.B. 1910, Cambridge.
 Mathews, Robert Francis, M.D. (*Univ. of Pennsylvania*) 1905, Worcester.
 Mayberry, Frank Eugene, M.D. (*Dartmouth Coll.*) 1885, Boston.
 Mayfield, Surry Foster, M.D. (*Tulane Univ.*) 1896, Tuscaloosa, Ala.
 Maynard, Frank Baldwin, M.D. (*Albany Med. Coll.*) 1896, Rochester, N. Y.
 Meyer, Arthur Louis, A.B. (*Beloit Coll.*) 1905, M.D. (*Univ. of Pennsylvania*) 1909, Garnavillo, Ia.
 Miller, Amy Phillips, Boston.
 Mitchell, William, M.D., C.M. (*McGill Univ.*) 1894, Needham Heights.
 Mooney, Robert Copeland, M.D. (*Albany Med. Coll.*) 1908, Gloversville, N. Y.
 Morgan, Harold James, M.D. (*Coll. of Phys. and Surg., New York*) 1895, Toledo, O.
 Morin, Jacob Mauritz, M.D. (*Long Island Coll. Hosp. Med. Sch.*) 1899, Felton Oriente, Cuba.
 Morse, Jean Whitney, M.D. (*Univ. of Michigan*) 1897, Ensenada, Porto Rico.
 Moursund, Walter Henrik, M.D. (*Univ. of Texas*) 1906, Dallas, Tex.
 Mumpower, Daniel Leeper, A.M. (*Yale Univ.*) 1903, M.D. (*Vanderbilt Univ.*) 1912, Doniphan, Mo.
 Munro, Donald, A.B. 1912, Boston.
 Munroe, Harrington Bennett, A.B. (*Queen's Univ., Canada*) 1898, M.D. (*McGill Univ.*) 1903, Lynn.
 Murphy, Frank Vincent, Marion, O.
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 Nisbet, Thomas Walker, Jr. Upland, Cal.
 Norton, Thomas Joseph, A.B. (*Holy Cross Coll.*) 1901, M.D. (*Jefferson Med. Coll.*) 1905, Pittsfield.
 Oberlin, Thomas William, M.D. (*Northwestern Univ. Med. Sch.*) 1898, Hammond, Ind.
 Ogden, Mahlon Dickerson, M.D. (*Univ. of Arkansas*) 1904, Little Rock, Ark.

- Painter, Burton Charles, M.D. (*Univ. of Pittsburgh*) 1905,
New Brighton, Pa.
- Park, Frank Stewart, A.B. (*Univ. of Toronto*) 1909,
M.B. (*ibid.*) 1911,
Toronto, Canada.
- Patty, Louis Greenlee, D.V.M. (*Iowa Agricultural Coll.*) 1887, M.D. (*Jefferson Med. Coll.*) 1893,
Carroll, Ia.
- Perkins, Thomas Tounge, M.D. (*Boston Univ. Med. Sch.*) 1898, M.D. (*Harvard Univ.*) 1901,
Cliftondale.
- Phelps, Wilbur Moorehead, M.D. (*George Washington Univ.*) 1903,
Staunton, Va.
- Pierce, Franklin Argile, M.D. (*Tulane Univ.*) 1904,
Dallas, Tex.
- Pleadwell, Frank Lester, M.D. 1896,
Brooklyn, N. Y.
- Price, Walter, M.D. (*George Washington Univ.*) 1910,
Washington, D. C.
- Prinz, Hermann, D.D.S. (*Univ. of Michigan*) 1896,
M.D. (*Barnes Med. Sch., St. Louis*) 1901, A.M.
(*Univ. of Michigan*) 1912,
St. Louis, Mo.
- Putnam, Elizabeth Lowell,
Manchester.
- Raia, Joseph Ernest, A.B. (*Brown Univ.*) 1911,
Providence, R. I.
- Rassieur, Louis, M.D. (*Marion-Sims Med. Coll.*) 1899,
St. Louis, Mo.
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South Fork, Pa.
- Reichelderfer, Vest Deesbach,
Amanda, O.
- Rice, Clark Hilton, Jr., M.D. (*Tulane Univ.*) 1903,
New Orleans, La.
- Roitman, Abraham George,
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- Ruble, Wells Allen, S.B. (*American Med. Missionary Coll.*) 1897, M.D. (*ibid.*) 1906,
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- Ruffin, Sterling, M.D. (*Columbian Univ.*) 1890,
Washington, D. C.
- Rupert, Mary Priestley Sheriff, M.D. (*Woman's Med. Coll. of Pennsylvania*) 1904,
Philadelphia, Pa.
- Ruthenberg, Erich, M.D. (*Rush Med. Coll.*) 1890,
Chicago, Ill.
- Saad, Abdul Malik,
Tehel Barood, Egypt.
- Savage, Francis Joseph, M.D. (*Univ. of Minnesota*) 1901,
St. Paul, Minn.
- Schepeler, Cortlandt Whitehead,
Ann Arbor, Mich.
- Seguro, Joseph Otto, M.D. (*Tulane Univ.*) 1910,
Logtown, Miss.
- Shank, Everett William, A.B. (*Oberlin Coll.*) 1902,
Dayton, O.
- Sharpe, John Semple, M.D. (*Univ. of Pennsylvania*) 1903,
Bryn Mawr, Pa.

- Sharry, Charles Francis, A.B. 1910,
 Silvester, Richard Lee, S.B. (*Maryland Agricultural Coll.*) 1908,
 Slobodkin, Simon Harris,
 Southworth, John Deane, A.B. (*Kenyon Coll.*) 1911,
 Stamp, Harley, A.B. (*Mt. Union Coll.*) 1896, A.M. (*ibid.*) 1903,
 Stark, George William, M.D. (*Syracuse Univ.*) 1906,
 Stevens, Carl Hervey, M.D. (*Med. Sch. of Maine*) 1911,
 Stitt, Edward Rhodes, A.B. (*Univ. of South Carolina*) 1885, M.D. (*Univ. of Pennsylvania*) 1889,
 Stoddard, James Leavitt, A.B. 1910,
 Streett, Hermon, M.D. (*Ohio Med. Coll.*) 1904,
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 Taylor, Charles Quintard,
 Taylor, William Xerxes, M.D. (*Cleveland Coll. of Phys. and Surg.*) 1903,
 Thomasson, Aaron Hood, A.B. (*Lincoln Univ.*) 1896,
 Titus, Henry Woodruff, A.B. (*Williams Coll.*) 1898, M.D. (*Columbia Univ. Coll. of Phys. and Surg.*) 1902,
 Tomkies, James Scott, A.B. (*Tulane Univ.*) 1903, M.D. (*Harvard Univ.*) 1908,
 Toomey, Thomas Noxon, A.B. (*Catholic Univ. of America*) 1911,
 Towne, Edward Bancroft, A.B. 1906,
 Tracy, Henry Carroll, A.B. (*Dartmouth Coll.*) 1902, A.M. (*Brown Univ.*) 1905, PH.D. (*ibid.*) 1910,
 Turner, John Calvin, Jr., S.B. (*Davidson Coll.*) 1908, A.M. (*ibid.*) 1909,
 Uhlemeyer, Henry Adolph, M.D. (*Homeopathic Med. Coll. of Missouri*) 1900,
 Underhill, Elizabeth Colden, M.D. (*Cornell Univ.*) 1900,
 Van Fossen, Jesse Allen, M.D. (*Ohio Med. Coll.*) 1893,
 Vinson, John Clifford, M.D. (*Atlanta Sch. of Med.*) 1906,
 Somerville.
 Aquasco, Md.
 Malden.
 Glendale, O.
 Alliance, O.
 Syracuse, N. Y.
 Brunswick, Me.
 Washington, D. C.
 Northampton.
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 Boston.
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 Dallas, Tex.
 St. Louis, Mo.
 Palo Alto, Cal.
 Chicago, Ill.
 Camilla, Ga.
 St. Louis, Mo.
 So. Hadley.
 Columbus, O.
 Tampa, Fla.

Walsh, Thomas Nelson, M.D. (<i>McGill Univ.</i>) 1892,	<i>Hawkeye, Ia.</i>
Walton, Frank, M.D. (<i>Vanderbilt Univ.</i>) 1899,	<i>Mulga, Ala.</i>
Ward, John Hester, PH.G. (<i>Univ. of the South</i>) 1899, M.D. (<i>ibid.</i>) 1900.	<i>Tuscaloosa, Ala.</i>
Wernick, Benzion G., M.D. (<i>Tufts Med. Sch.</i>) 1903,	<i>Boston.</i>
Withington, Paul, A.B. 1909,	<i>Cambridge.</i>
Whiteside, Margaret, M.D. (<i>Woman's Med. Coll. of</i> <i>Pennsylvania</i>) 1912,	<i>Richburg, S. C.</i>
Willis, George Stuart, M.D. (<i>New York Homeo-</i> <i>pathic Med. Coll.</i>) 1899,	<i>Morristown, N. J.</i>
Wilson, David, A.B. (<i>Cornell Univ.</i>) 1905, M.D. (<i>ibid.</i>) 1907,	<i>Amsterdam, N. Y.</i>
Winchester, Harold Eugene, S.B. (<i>Dartmouth</i> <i>Coll.</i>) 1910,	<i>Bismarck, No. Dak.</i>
Wolcott, Allen Moore, M.D. (<i>Univ. of California</i>) 1907,	<i>Oakland, Cal.</i>
Woods, Arthur Daniel, M.D. (<i>State Univ. of Iowa</i>) 1906,	<i>State Center, Ia.</i>
Wright, Halstead Robert, D.D.S. (<i>Starling Ohio</i> <i>Med. Coll.</i>) 1895, M.D. (<i>ibid.</i>) 1910,	<i>Columbus, O.</i>
Wright, Wade Stanley, S.B. (<i>Univ. of Pittsburgh</i>) 1910,	<i>Pittsburgh, Pa.</i>
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Yarian, Norman Carey, S.B. (<i>Hiram Coll.</i>) 1894, M.D. (<i>Cleveland Coll. of Phys. and Surg.</i>) 1896,	<i>Cleveland, O.</i>

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH	3
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE FOURTH CLASS	57
THIRD CLASS	65
SECOND CLASS	78
FIRST CLASS	69
SPECIAL STUDENTS	18
TOTAL	290
IN COURSES FOR GRADUATES, OCTOBER 1, 1911, TO JUNE 1, 1912	156
IN SUMMER COURSES, JUNE 1 TO OCTOBER 1, 1912 . . .	218
TOTAL STUDENTS OCT. 1, 1911, to OCT. 1, 1912 . . .	664

ANNOUNCEMENT FOR 1913-14

The next session of the Medical School begins September 22, 1913. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Monday, the 22d of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should write prior to this time to the Secretary of the Harvard Medical School, in regard to conditions for admission and the applicant's ability to meet these.

CALENDAR

1913.

- | | |
|----------------------------|---|
| <i>Sept. 15, Monday.</i> | Examinations begin for applicants for advanced standing, and for men previously conditioned. |
| <i>Sept. 20, Saturday.</i> | Examination in Chemistry for admission. |
| <i>Sept. 22, Monday.</i> | Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date. |
| <i>Oct. 13, Monday.</i> | Columbus Day : a holiday. |
| <i>Nov. 1, Saturday.</i> | Last day for receiving essays for the William H. Thorndike Prize. |
| <i>Nov. 27, Thursday.</i> | Thanksgiving Day : a holiday. |
| <i>Dec. 1, Monday.</i> | Last day for receiving applications for the Cheever and Hayden Scholarships. |

RECESS FROM DEC. 23, 1913, TO JAN. 2, 1914, INCLUSIVE

1914.

- | | |
|----------------------------|--|
| <i>Jan. 1, Thursday.</i> | Last day for receiving dissertations for the Boylston Medical Prizes. |
| <i>Jan. 15, Thursday.</i> | Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1914. |
| <i>Jan. 28, Wednesday.</i> | Mid-year Examinations begin. |
| <i>Jan. 31, Saturday.</i> | Payment of the second instalment of the tuition-fee is required on or before this date. |

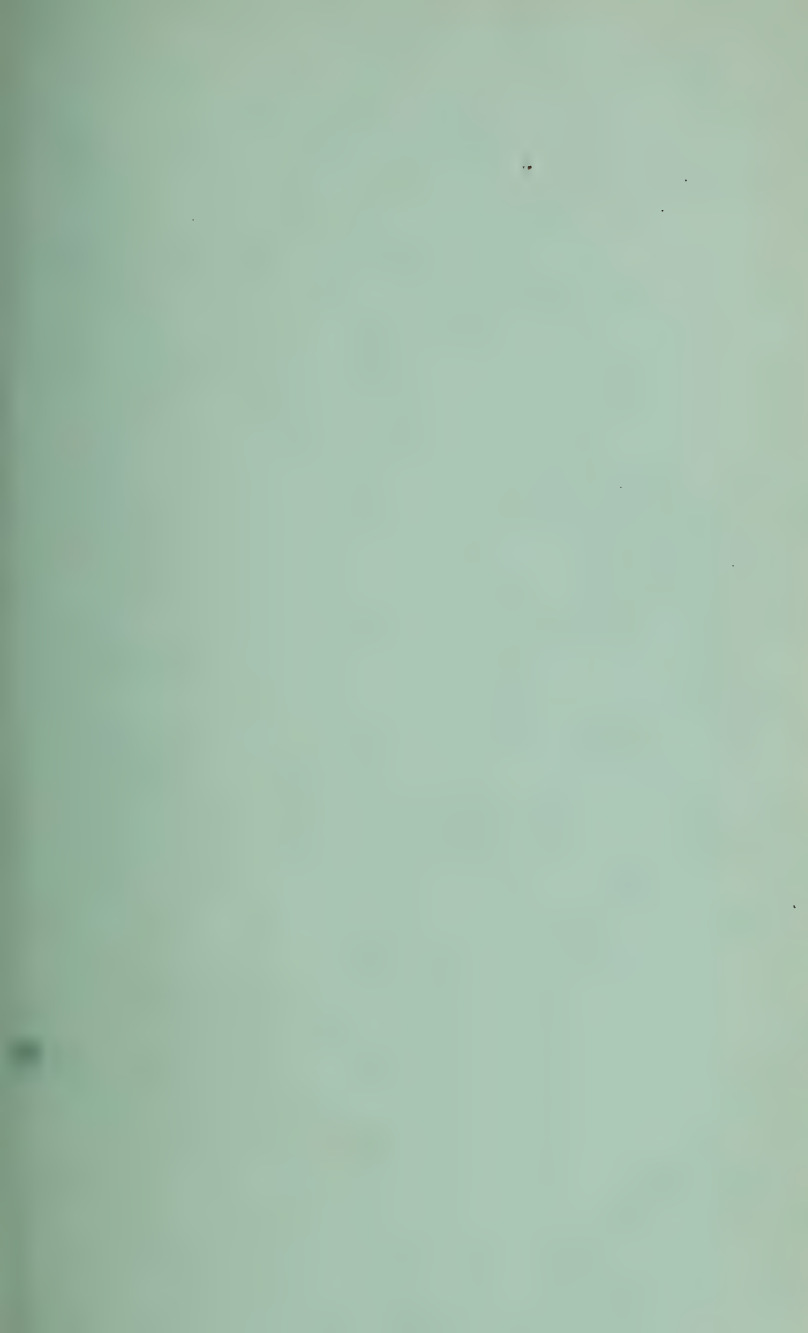
- Feb. 2, Monday.* **Second half-year begins.**
Feb. 23, Monday. Washington's Birthday : a holiday.
April 1, Wednesday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 19 TO APRIL 25, INCLUSIVE

- May 1, Friday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
May 1, Friday. Last day for receiving applications for the Bullard Fellowships.
May 1, Friday. Last day for receiving applications for Scholarships for 1914-15 (except the Cheever and Hayden Scholarships).
May 1, Friday. Last day for receiving applications of candidates for the degree of M.D. in 1914.
May 30, Saturday. Memorial Day : a holiday.
June 1, Monday. Examinations begin.
June 13, Saturday. Examination in Chemistry for admission.
June 18, Thursday. **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 27, INCLUSIVE

- Sept. 21, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 20, Saturday. Examination in Chemistry for admission.
Sept. 28, Monday. **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
Oct. 12, Monday. Columbus Day : a holiday.
Nov. 2, Monday. Last day for receiving essays for the William H. Thorndike Prize.
Nov. 26, Thursday. Thanksgiving Day : a holiday.
Dec. 1, Tuesday. Last day for receiving applications for the Cheever and Hayden Scholarships.



OFFICIAL REGISTER OF HARVARD UNIVERSITY

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The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Descriptive Pamphlet; the Announcements of the several Departments; etc., etc.

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OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOLUME X

OCTOBER 20, 1913 NO. 4, PART III

THE
HARVARD MEDICAL SCHOOL
LONGWOOD AVENUE, BOSTON, MASS.

1913-14

WITH AN ANNOUNCEMENT FOR 1914-15



PUBLISHED BY HARVARD UNIVERSITY

UNIVERSITY OF HARVARD
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ANNOUNCEMENT
OF THE
MEDICAL SCHOOL
LONGWOOD AVENUE, BOSTON, MASS.
OF
HARVARD UNIVERSITY
FOR
1913-14
•
WITH AN ANNOUNCEMENT FOR 1914-1915



PUBLISHED BY THE UNIVERSITY

CONTENTS

MEDICAL SCHOOL CALENDAR	PAGE 5
FACULTY OF MEDICINE	7
FACULTY COUNCIL	10
ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL	10
ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL	11
ADMINISTRATIVE BOARD OF THE MEDICAL SCHOOL	12
OTHER INSTRUCTORS OF THE MEDICAL SCHOOL	12
AUSTIN TEACHING FELLOWS	18
GENERAL STATEMENT	19
ADMISSION OF STUDENTS	19
ADMISSION TO ADVANCED STANDING	20
DIVISION OF STUDENTS	20
TABLE OF DIVISION OF STUDIES	21
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	22-47
Anatomy	22
Physiology	25
Comparative Physiology	27
Biological Chemistry	28
Bacteriology	28
Pathology	29
Legal Medicine	31
Comparative Pathology	31
Preventive Medicine and Hygiene	32
Pharmacology	32
Medicine	33
Surgery	35
Orthopedic Surgery	39
Roentgenology	39
Obstetrics and Gynaecology	39
Pediatrics	41
Dermatology and Syphilis	42
Diseases of the Nervous System	43
Neurology	44
Ophthalmology	45
Otology	45
Laryngology and Rhinology	46
FOURTH-YEAR ELECTIVES	47

	PAGE
FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS . . .	47
EXAMINATIONS	65
DEGREES	67
FEES AND EXPENSES	68
CLINICAL ADVANTAGES	70
HOSPITAL APPOINTMENTS	73
CANCER COMMISSION OF HARVARD UNIVERSITY	74
WARREN MUSEUM	75
LIBRARIES	75
FELLOWSHIPS AND SCHOLARSHIPS	76
PRIZES	82
SPECIAL STUDENTS	84
GRADUATE SCHOOL OF MEDICINE	84
TABULAR VIEW OF UNDERGRADUATE COURSES	86
DEGREES CONFERRED IN 1913	92
ANNUAL EXAMINATION PAPERS	94
STUDENTS	109
ANNOUNCEMENT FOR 1914-15	121

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- Sept. 20, Saturday.* Examination in Chemistry for admission.
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- Oct. 13, Monday.* Columbus Day : a holiday.
- Nov. 1, Saturday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 27, Thursday.* Thanksgiving Day : a holiday.
- Dec. 1, Monday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 21, 1913, TO JAN. 4, 1914, INCLUSIVE

1914.

- Jan. 15, Thursday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1914.
- Jan. 28, Wednesday.* Mid-year Examinations begin.
- Jan. 31, Saturday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 2, Monday.* Second half-year begins.
- Feb. 23, Monday.* Washington's Birthday : a holiday.
- April 1, Wednesday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 19 TO APRIL 25, INCLUSIVE

<i>May 1, Friday.</i>	Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
<i>May 1, Friday.</i>	Last day for receiving applications for the Bullard Fellowships.
<i>May 1, Friday.</i>	Last day for receiving applications for Scholarships for 1914-15 (except the Cheever and Hayden Scholarships).
<i>May 1, Friday.</i>	Last day for receiving applications of candidates for the degree of M.D. in 1914.
<i>May 30, Saturday.</i>	Memorial Day: a holiday.
<i>June 1, Monday.</i>	Examinations begin.
<i>June 13, Saturday.</i>	Examination in Chemistry for admission.
<i>June 18, Thursday.</i>	Commencement.

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 27,
INCLUSIVE

<i>Sept. 21, Monday.</i>	Examinations begin for applicants for advanced standing, and for men previously conditioned.
<i>Sept. 26, Saturday.</i>	Examination in Chemistry for admission.
<i>Sept. 28, Monday.</i>	Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
<i>Oct. 12, Monday.</i>	Columbus Day: a holiday.
<i>Nov. 2, Monday.</i>	Last day for receiving essays for the William H. Thorndike Prize.
<i>Nov. 26, Thursday.</i>	Thanksgiving Day: a holiday.
<i>Dec. 1, Tuesday.</i>	Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL

FACULTY OF MEDICINE*

	ADDRESS.†
ABBOTT LAWRENCE LOWELL, LL.B., LL.D., PH.D., PRESIDENT,	17 Quincy St., Cambridge.
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WILLIAM F. WHITNEY, M.D., <i>John Barnard Swett</i> <i>Jackson Curator of the Warren Anatomical Museum</i> ,	Harvard Medical School.
CHARLES S. MINOT, S.D., LL.D., <i>James Stillman</i> <i>Professor of Comparative Anatomy</i> , and <i>Director of</i> <i>the Laboratory of Anatomy</i> ,	Harvard Medical School.
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GEORGE HOWARD MONKS, M.D., M.R.C.S., <i>Pro-</i> <i>fessor of Oral Surgery</i> ,	67 Marlborough St.
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WILLIAM P. COOKE, D.M.D., <i>Professor of Prosthetic</i> <i>Dentistry</i> ,	330 Dartmouth St.

* Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

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- HERMAN F. VICKERY, M.D., *Instructor in Medicine*, 263 Beacon St.
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- EUGENE A. CROCKETT, M.D., *Assistant Professor of Otology*, 298 Marlborough St.
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- DAVID L. EDSALL, M.D., S.D., *Jackson Professor of Clinical Medicine*, 80 Marlborough St.

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 CHARLES S. MINOT, S.D., LL.D., *James Stillman Professor of Comparative Anatomy and Director of the Laboratory of Anatomy.*

ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL

The Dean's Office is in the Administration Building of the Medical School, Room 104. It is open daily from 9 to 1 and from 2 to 5, except on Saturdays, Sundays, and holidays; on Saturdays it is open from 9 to 1. Those seeking information about the Medical School should inquire in this office.

The Bursar's Office is in Dane Hall, Harvard University, Cambridge. It is open daily, except Sundays and holidays, from 9 to 1, for the reception of students.

of fees, payments, and other financial business. A representative of the Bursar will be in the Administration Building at the Medical School at stated hours on certain days at the opening of each term for the receipt of fees from regular students.

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL

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Office, 5 University Hall, Cambridge.

Dean: EDWARD H. BRADFORD, M.D.

Office, Administration Building, Medical School. Office hours, Fridays, 4 to 5 P.M.

Secretary of the Faculty: FRANCIS W. PALFREY, M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays, 4 to 5 P.M.

Director of Scholarships: FRANKLIN DEXTER, M.D.

Office, Room 386, Building D I, Medical School. Office hours, Mondays, 2.00 to 3.15 P.M., for appointments.

Director for Appointments for Medical Alumni: A. B. EMMONS, 2d, M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays and Fridays, 3.30 to 5 P.M., and by appointment.

Adviser to students in Harvard College preparing for the study of Medicine: WALTER B. CANNON, M.D.

Office, 2 Divinity Avenue, Cambridge, Mass. Office hours, 7 to 8 evenings, by appointment.

Chairman of the Committee on the Degree of Doctor of Public Health: MILTON J. ROSENAU, M.D.

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Office, Room 301, Building C I, Medical School. Office hours, Mondays, 2 to 3 P.M.

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Office, Administration Building, Medical School. Office hours, Thursdays, 4 to 5 P.M.

Secretary of the Graduate School of Medicine: WALTER C. HOWE, M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays, 4 to 5 P.M.

Chief Clerk in the Dean's Office: HELEN G. MEDBURY.

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- | | ADDRESS † |
|--|---------------------------|
| EDWARD COWLES, M.D., LL.D., <i>Instructor in Psychiatry,</i> | 419 Boylston St |
| GEORGE T. TUTTLE, M.D., <i>Clinical Instructor in Psychiatry,</i> | McLean Hospital, Waverley |
| SAMUEL J. MIXTER, M.D., <i>Lecturer on Surgery,</i> | 180 Marlborough St |
| GEORGE H. MONKS, M.D., M.R.C.S., <i>Lecturer on Surgery,</i> | 67 Marlborough St |
| FRANCIS B. HARRINGTON, M.D., <i>Lecturer on Surgery,</i> | 201 Beacon St |
| WILLIAM F. KNOWLES, M.D., <i>Assistant in Otology,</i> | 220 Clarendon St |
| J. PAYSON CLARK, M.D., <i>Instructor in Laryngology,</i> | 71 Marlborough St |
| CHARLES L. SCUDDER, M.D., <i>Associate in Surgery,</i> | 209 Beacon St |
| ELLIOTT G. BRACKETT, M.D., <i>Associate in Orthopedic Surgery,</i> | 166 Newbury St |
| WILLIAM N. SOUTER, M.D., <i>Fellow in Ophthalmology.</i> | Portsmouth, N. H. |
| ARTHUR K. STONE, M.D., <i>Instructor in Medicine,</i> | 44 Fairfield St |

* Arranged on the basis of collegiate seniority.

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- RICHARD D. BELL, M.D., *Fellow in Biological Chemistry*, 26 Bow St., Somerville.
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AUSTIN TEACHING FELLOWS

- WALTER L. MENDENHALL, M.D., *in Physiology*, 706 Huntington Ave.
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- RICHARD S. AUSTIN, M.D., *in Bacteriology*, Harvard Medical School.
- ROGER S. HUBBARD, A.M., *in Biological Chemistry*, Harvard Medical School.
- MAX M. MILLER, A.M., *in Histology and Embryology*, Harvard Medical School.

HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

The Harvard Medical School started as a branch of the University in 1782 when three professorships of medicine were established. The first degrees in medicine were conferred in 1788. Before 1811, the degree conferred was that of Bachelor of Medicine; after that date the degree of Doctor of Medicine was established. The first Medical School was built in Boston in 1815. In 1906, the Medical School moved into its new quarters on Longwood Avenue. For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors. At the present time several hospitals are being or have been constructed on the grounds adjacent to the Medical School. A statement in regard to these hospitals and the other hospitals in which teaching is done will be found on pages 70-74 of this catalogue.

In 1910, under the supervision of the Department of Preventive Medicine and Hygiene, courses leading to a degree of Doctor of Public Health were established.

In 1913 the Graduate School of Medicine was established to take charge of the graduate instruction throughout the year, which had previously been given by the Harvard Medical School under the Courses for Graduates and the Summer School of Medicine. The Graduate School of Medicine will also take charge of all special students who are not candidates for the degree of Doctor of Medicine. For particulars, see page 84.

The academic year begins on the Monday preceding the last Wednesday in September, and ends on the Thursday preceding the last Wednesday in June. There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

ADMISSION OF STUDENTS

I. Students who have acquired from a recognized college or scientific school a degree in arts or science are admitted as candidates for the degree of M.D., provided they present evidence that they have had satisfactory preliminary training in chemistry, physics, and biology. The courses in

chemistry should include general chemistry, organic chemistry, and qualitative analysis.

II. Students who have successfully completed two years of work in a recognized college or scientific school, provided they present certificates that one full year has been devoted to chemistry, physics, and biology, and that the student ranks in the upper third of his class, are also admitted as candidates for the degree of M.D.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other recognized medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

They must furnish a satisfactory certificate of time spent in medical studies, must pass examinations * and satisfy all requirements of laboratory and practical work in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission enumerated under I or II.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations and by fulfilling all requirements of laboratory and practical work required in the full undergraduate course, and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required practical examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed the first general examination.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has failed on all of the practical examinations on first-year subjects.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Monday, the first day of the academic year.

Students are required to devote themselves exclusively to the work of the School.†

Any student may obtain a certificate of his period of connection with the School.

* For statement in regard to examinations, see p. 65.

† The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR ELECTIVES
Anatomy	Bacteriology	Medicine	Anatomy 1, 2, 3, 4, 5, 6, and 7
Histology and Embryology	Pathology	Surgery (written 2 hrs., practical 1 hr.)	Surgery 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10
Physiology	Anatomy	Clinical Surgery (written 1 hr., practical 1 hr.)	Orthopedic Surgery 1 and 2
Biochemistry	Preventive Medicine and Hygiene	Orthopedic Surgery	Obstetrics and Gynaecology 1 and 2
	Pharmacology	Roentgenology	Dermatology and Syphilis 1, 2, 3, and 4
	<i>Medicine</i>	Obstetrics	Neurology and Psychiatry 1, 2, 3, and 4
	<i>Surgery</i>	Gynaecology	Ophthalmology 1 and 2
	<i>Neurology</i>	Pediatrics	Otology 1, 2, and 3
	<i>Dermatology</i>	Dermatology	Laryngology 1 and 2
		Syphilis	
		Neurology	
		Psychiatry	
		Ophthalmology	
		Otology	
		Laryngology	
		<i>Genito-Urinary Surgery</i>	
		<i>Legal Medicine</i>	

NOTE. — Subjects not completed in a given year are in *italics*. In the fourth year, electives must be chosen aggregating 1000 hours; both half-courses and quarter-courses are offered occupying 125 and 65 hours respectively.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
Ch.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
H.M.H.	= Huntington Memorial Hospital.
I.H.	= Infants' Hospital (Rotch Memorial Building).
L.I.H.	= Long Island Hospital.
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
M.B.H.	= Massachusetts Babies' Hospital.
P.B.B.H.	= Peter Bent Brigham Hospital.
P.H.	= Psychopathic Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.H.	= Samaritan Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

- CHARLES S. MINOT, S.D., LL.D., *James Stillman Professor of Comparative Anatomy and Director of the Laboratory of Anatomy.*
 JOHN L. BREMER, M.D., *Assistant Professor of Histology.*
 JOHN WARREN, M.D., *Assistant Professor of Anatomy.*
 DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy.*
 FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology.*
 HARRIS P. MOSHER, M.D., *Instructor in Anatomy.*
 ROBERT M. GREEN, M.D., *Instructor in Anatomy.*
 ALEXANDER S. BEGG, *Instructor in Comparative Anatomy.*
 ARCHIBALD MCK. FRASER, M.D., *Assistant in Anatomy.*

JOHN B. HARTWELL, M.D., *Assistant in Anatomy.*

WALTER M. BOOTHBY, M.D., *Assistant in Anatomy.*

ALBERT EHRENFRIED, M.D., *Assistant in Anatomy.*

EDWARD H. RISLEY, M.D., *Assistant in Anatomy.*

JOHN BRYANT, M.D. *Assistant in Anatomy.*

GEORGE W. MORSE, JR., M.D., *Assistant in Anatomy.*

WILLIAM S. WHITTEMORE, M.D., *Assistant in Anatomy.*

KURT H. THOMA, D.M.D., *Assistant in Dental Anatomy.*

EDWIN A. BOYDEN, A.M., *Teaching Fellow in Histology and Embryology.*

ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy.*

MAX M. MILLER, A.M., *Austin Teaching Fellow in Histology and Embryology.*

In this department instruction is given in Anatomy, Comparative Anatomy, Histology, and Embryology. The department occupies the Morgan Anatomical Building, the dissecting rooms being in the wing designated B I, and the laboratories for Histology, Embryology, and Comparative Anatomy in the wing B II. There are separate rooms for fourth-year and graduate students and for various kinds of technical work. The class work is carried on by sections in unit rooms, which are well lighted, and thoroughly equipped. Each unit room measures twenty-three by thirty feet and is designed to accommodate twelve or twenty-four students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about ten thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for work in human and comparative anatomy and embryology.

The Embryological Collection is a unique feature of the laboratory. It comprises over nineteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes sixty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet obtained. The collection of embryological models contains the standard series and many unique original models.

REGULAR COURSES

First Year. — This course is intended to teach the normal gross anatomy, histology, and embryology of the human body. Half of the time is devoted to work in the dissecting rooms, the other half to work in the histological and embryological laboratories. In the study of gross anatomy, each student makes a complete dissection of one side of the human body, and all of the class dissect the same part at the same time. The general order of dissection is as follows:— body-wall; lower extremity; thoracic, abdominal and pelvic cavities; upper extremity; head; neck. The study of the skeleton is carried on with the dissection. The lectures and demonstrations are arranged to follow closely the work in the dissecting room.

The part of the course dealing with microscopic anatomy is a study of cells, tissues, and organs, from the developmental standpoint. Cell structure and the fundamental tissues are considered first. This is followed by a study of chick embryos of 30 and 48 hours and pig embryos of 20 days, in which special stress is laid on the origin and growth of the different organs. During the remainder of the course the organs of the adult are studied in succession. In connection with the uterus, the human placenta and fetal membranes are considered. The month of January is devoted to the central nervous system and sense organs.

Microscopes. — Every student is advised to purchase a microscope, but microscopes may be rented at four dollars for the term.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 47.

FIRST YEAR

<i>October, November, December, and January</i>		HOURS
Lectures.	Professor MINOT, Asst. Professors LEWIS, WARREN, and BREMER. <i>Eleven lectures a week, nine hours.</i>	144
Demonstrations.	<i>To sections of the class, at the pleasure of the instructors.</i>	
Laboratory work.	<i>Six and one-half hours five times a week.</i>	520

Second Year. — The second-year course in anatomy will be given during February and March. The class will be divided into sections and each section will have approximately four hours per week. The work will consist chiefly of the careful study and drawing of frozen sections and of dissections and specimens of various sorts. There will also be a certain number of lectures or demonstrations on applied anatomy to emphasize those practical details which are essential for clinical work. The work in the laboratory is planned to be carried on in close coöperation with the clinical studies in medicine and surgery.

SECOND YEAR

February and March

Lectures, demonstrations, and laboratory work to sections of the class, four hours per week.

36

INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

ERNEST G. MARTIN, Ph.D., *Assistant Professor of Physiology.*

PERCY G. STILES, Ph.D., *Instructor in Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

CHARLES M. GRUBER, A.M., *Teaching Fellow in Physiology.*

JOHN G. MATEER, A.B., *Teaching Fellow in Physiology.*

WALTER L. MENDENHALL, M.D., *Austin Teaching Fellow in Physiology.*

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology, based upon reading of the records of original investigations, is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Wednesday morning of each week is largely devoted to work in the Library. Some of the theses, which are closely related to the regular instruction, are presented before the class. Among those read publicly during the past academic years were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is quizzed orally every week by the instructing staff. Usually at the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. The examination books are returned, corrected, to the students. Five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Students who have had, before entering this course, a large part of the laboratory work or much laboratory experience may be permitted to coop-

erate with members of the staff in special investigations. Such students are excused from the preparation of theses.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 49.

FIRST YEAR (Second half)

HOURS

Laboratory experiments. Professor CANNON, Asst. Professor MARTIN, Drs. FORBES, STILES, MENDENHALL, and Mr. GRUBER.	
<i>Daily.</i>	
Quizzes (14). <i>One hour Saturdays.</i>	176
Written tests (5). <i>One hour Mondays.</i>	14
Lectures (90). Professor CANNON, Asst. Professor MARTIN, and Dr. FORBES.	5
Special demonstrations (30). Professor CANNON, Asst. Professor MARTIN, and Dr. FORBES.	90
Discussion of Theses (30).	15
Thesis. Written by each student from the original sources.	10
Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the professor in charge.

II. *Comparative Physiology of Muscle.* Professor PORTER. Three hours weekly during February and March.

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 50.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*

LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry.*

HARRY W. GOODALL, M.D., *Assistant in Biological Chemistry.*

JAMES L. MORRIS, A.M., *Assistant in Biological Chemistry.*

JAMES B. SUMNER, A.M., *Assistant in Biological Chemistry.*

FREDERICK S. HAMMETT, M.S., *Teaching Fellow in Biological Chemistry.*

HENRY LYMAN, M.D., *Fellow in Biological Chemistry.*

FRED F. FLANDERS, Ph.D., *Fellow in Biological Chemistry.*

RICHARD D. BELL, M.D., *Fellow in Biological Chemistry.*

ROGER S. HUBBARD, A.M., *Austin Teaching Fellow in Biological Chemistry.*

First Year.—The lectures in this course consist of a brief discussion by Dr. HENDERSON and Mr. MORRIS of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, and of the general principles and more important facts of physiological chemistry, by Professor FOLIN and Dr. GOODALL.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 50.

FIRST YEAR (Second half)

HOURS

Lectures. Professor FOLIN and Asst. Professor HENDERSON. *One hour five times a week.* 80

Laboratory work. Professor FOLIN, Mr. MORRIS, Mr. HAMMETT and Mr. HUBBARD. *Two and one-half hours five times a week.* 200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Assistant Professor of Bacteriology.*

LANGDON FROTHINGHAM, M.D.V., *Instructor in Bacteriology.*

CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*

CLEAVELAND FLOYD, M.D., *Instructor in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*
 HAROLD W. DANA, M.D., *Assistant in Bacteriology.*
 LESLEY H. SPOONER, M.D., *Assistant in Bacteriology.*
 JAMES A. HONEIJ, M.D., *Fellow in Bacteriology.*

RICHARD S. AUSTIN, M.D., *Austin Teaching Fellow in Bacteriology.*

Second Year.—Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 50.

SECOND YEAR

HOURS

Lectures. Professor ERNST. *Daily, except Saturdays, during October and November.*

40

Laboratory work. Professor ERNST, and Drs. FROTHINGHAM, PAGE, PERRY, DANA, and FLOYD. *Two to three hours daily during October and November.*

120

Pathology

WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology.*

ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology.*

HOWARD T. KARSNER, M.D., *Assistant Professor of Pathology.*

FREDERICK H. VERHOEFF, M.D., *Instructor in Ophthalmic Pathology.*

JAMES E. ASH, M.D., *Instructor in Pathology.*

NATHAN CHANDLER FOOT, M.D., *Instructor in Pathology.*

JOHN E. DWYER, Jr., M.D., *Assistant in Pathology.*

ALBERT A. W. GHOREYEB, M.D., *Assistant in Pathology.*

Second Year.—The course in Pathology consists of laboratory work and lectures. The basis of the laboratory work is the systematic course in pathological histology. In connection with this there are demonstrations of material bearing on the subjects studied and experiments. In this work the students are divided into small sections. The demonstrations are given to these sections and the experimental work on anaesthetized

animals is carried out by the sections under the direction and supervision of Asst. Professor KARSNER, who has charge of this branch of the work. The demonstrations and experimental work are given in rooms adjoining the main laboratory which are adequately provided with apparatus. Both the demonstrations and experiments are in connection with the subjects which are being studied. Lectures are given five days in the week, the object of the lectures being rather to expand and coördinate the knowledge which the student is acquiring by his study of material than to impart new information. During the entire period of the course groups of students are sent to the various hospitals to see and assist in post-mortem examinations. Each group prepares microscopical specimens of the tissues from the autopsy, which are studied under direction and described. No attempt is made to separate the subject of Pathology into general pathology and pathological anatomy, but the subject is studied as a whole. In teaching the student is taught methods of work, is given material, and directed; but he is taught to work independently. Tumors and other material coming from the surgical clinics are made full use of in the course

On Saturdays conferences and recitations are substituted for the regular laboratory work.

In the forenoons of the second and third weeks of December, Professor T. SMITH gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 51.

SECOND YEAR

HOURS

Lectures. Professor COUNCILMAN. *Daily for fourteen weeks, October, November, December (first week only), and January.* 84

Lectures. Professor T. SMITH. *One hour daily, second and third weeks of December.* 12

Laboratory work. Professor COUNCILMAN, Assistant Professor KARSNER, Dr. ASH and Dr. FOOT. *Three hours daily during the forenoons of October, November, December (first week only), and January.* 252

Demonstrations and laboratory work. Professor T. SMITH. *Two hours daily, second and third weeks of December.* 24

Demonstration of autopsy material. Dr. J. H. WRIGHT. (M.G.H.) *One hour a week.*

Neuropathology. Professor SOUTHARD. *Afternoons in December.* 45

Surgical Pathology. Associate Professor NICHOLS. *Afternoons in January.* 36

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

THEOBALD SMITH, M.D., LL.D., S.D., *George Fabyan Professor of Comparative Pathology.*

MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology.*

CARLON TENBROECK, M.D., *Assistant in Comparative Pathology.*

J. HOWARD BROWN, S.M., *Austin Teaching Fellow in Comparative Pathology.*

Second Year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 52.

SECOND YEAR

HOURS

Lectures. Professor T. SMITH. (H.M.S.) *One hour daily, second and third weeks of January.* 12

Demonstrations and laboratory work. Professor T. SMITH, Assistant Professor TYZZER, and Dr. FABYAN. *Two hours daily, second and third weeks in December.* 24

Preventive Medicine and Hygiene

MILTON J. ROSEN, M.D., Professor of Preventive Medicine and Hygiene

EDWARD G. ROSEN, M.D., Instructor in Preventive Medicine and Hygiene.

LEWIS W. HACKETT, M.D., Dr. Instructor in Preventive Medicine and Hygiene.

FRANCIS B. GRINNELL, M.D., Assistant in Preventive Medicine and Hygiene.

MARK F. BOYD, M.D., M.D., Charles Follen Folsom Teaching Fellow in Hygiene.

Second Year. — The instruction consists of lectures and demonstrations.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 53.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor ROSENAU and assistants. *Four times a week, second half-year.* 64

Pharmacology

REID HUNT, M.D., Professor of Pharmacology.

WORTH HALE, M.D., Assistant Professor of Pharmacology.

Courses in pharmacology are given in the second and in the fourth years. In the second year the instruction is given by lectures, recitations, demonstrations, and a short laboratory course in which the students have an opportunity of learning the physical and chemical properties of the most important drugs and of performing experiments illustrating the physiological actions of a number of these. A few exercises are given in pharmacy and materia medica, the work consisting of demonstrations and practical exercises. Some attention is also given to toxicology. During the fourth year an opportunity is offered to students of doing more advanced work in experimental pharmacology.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 53.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor HUNT and Assistant Professor
HALE. *One hour twice a week, February, March, and April; one
hour four times a week, May.* 40

Laboratory work. *Two hours once a week, February, March, and April.*
24

Medicine

The Department of Medicine is composed of the following departments of
the Theory and Practice of Physic and Clinical.

GEORGE G. SEARS, M.D., *Clinical Instructor of Medicine.*
DAVID L. EDSALL, M.D., S.D., *Jack Professor of Clinical Medicine.*
HENRY A. CHRISTIAN, M.D., *Henry P. Walcott Professor of the Theory and
Practice of Physic.*

RICHARD C. CABOT, M.D., *Assistant Professor of Medicine.*

ELLIOTT P. JOSLIN, M.D., *Assistant Professor of Medicine.*

HERMAN F. VICKERY, M.D., *Instructor in Medicine.*

WILLIAM H. SMITH, M.D., *Instructor in Medicine.*

THOMAS ORDWAY, M.D., *Instructor in Medicine.*

CHANNING FROTHINGHAM, Jr., M.D., *Instructor in Medicine.*

ARTHUR K. STONE, M.D., *Instructor in Medicine.*

HENRY F. HEWES, M.D., *Instructor in Medicine.*

FRANKLIN W. WHITE, M.D., *Instructor in Medicine.*

WILLIAM H. ROBEY, Jr., M.D., *Instructor in Medicine.*

GEORGE S. C. BADGER, M.D., *Instructor in Medicine.*

JOSEPH H. PRATT, M.D., *Instructor in Medicine.*

EDWIN A. LOCKE, M.D., *Instructor in Medicine.*

FREDERICK T. LORD, M.D., *Instructor in Medicine.*

ROGER I. LEE, M.D., *Instructor in Medicine.*

RALPH C. LARRABEE, M.D., *Assistant in Medicine.*

FRANCIS W. PALFREY, M.D., *Assistant in Medicine.*

WILLIAM B. ROBBINS, M.D., *Assistant in Medicine.*

GERALD BLAKE, M.D., *Assistant in Medicine.*

CHARLES L. OVERLANDER, M.D., *Assistant in Medicine.*

G. CHEEVER SHATTUCK, M.D., *Assistant in Medicine.*

CHARLES H. LAWRENCE, Jr., M.D., *Assistant in Medicine.*

LOUIS H. NEWBURGH, M.D., *Alumni Assistant in Medicine.*

FRANCIS W. PEABODY, M.D., *Alumni Assistant in Medicine.*

JAMES H. MEANS, M.D., *Henry P. Walcott Fellow in Clinical Medicine.*

The instruction given by the Department of Medicine consists of both
clinical and laboratory work. The clinical work is given by means of
lectures, clinical lectures, and practical work in the Out-Patient Depart-

ment and wards of the hospitals. Laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research.

The general plan of the work will be to instruct the students during the second half of the second year in the methods of history-taking, physical examination, and clinical laboratory technique, to drill the students in the third year as assistants in the Out-Patient Departments of the hospitals, and in the fourth year to give them continued contact with patients by having them serve as clinical clerks in the hospital wards. Much of this work will be conducted in small sections, while lectures and clinical lectures will be given for the class with the view of presenting to the students a more comprehensive knowledge of medicine. This instruction will be in part at the Harvard Medical School, in part at the Peter Bent Brigham Hospital, the Massachusetts General Hospital, the Boston City Hospital, and several of the special hospitals. In these hospitals an abundant and varied clinical material is available for the conduct of these various exercises.

Second and Third Years.—*Lectures and recitations.* Lectures and recitations on selected topics will be given at the Medical School.

Clinical Lectures.—Clinical lectures in which the students are called upon to take an active part will be given in the amphitheatre of the Peter Bent Brigham Hospital, the Massachusetts General Hospital, and the Boston City Hospital.

Clinical Exercises.—Small sections of the class will be drilled thoroughly in the hospitals in the taking of histories, methods of physical examination, and in the examination of urine, blood, sputum, and gastric contents.

Laboratory.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 53.

SECOND YEAR		HOURS
Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, second half-year.</i>	32
Clinical Lectures. Professor SEARS. (B.C.H.)	<i>Once a week, second half-year.</i>	16

Clinical lectures. Professor EDSALL. (M.G.H.)	<i>Once a week, second half-year.</i>	16
Exercises in sections.	<i>Each student has sixty exercises.</i>	90
Laboratory exercises. Dr. HEWES and assistants.	<i>Three times a week, second half-year. Two hour periods.</i>	96

THIRD YEAR

HOURS

Lectures on selected topics. Professor CHRISTIAN. (H.M.S.)	<i>Twice a week, first half-year.</i>	32
Lectures on selected topics. Assistant Professor CABOT. (H.M.S.)	<i>Twice a week, second half-year.</i>	32
Clinical lectures. Professor CHRISTIAN. (P.B.B.H.)	<i>Once a week throughout the year.</i>	32
Clinical lectures. Professor EDSALL (M.G.H.) and Professor SEARS (B.C.H.).	<i>Once a week throughout the year.</i>	32
Exercises in sections.	<i>Each section has forty-eight exercises of three hours each.</i>	144

Surgery

The Department of Surgery includes surgery, clinical surgery, operative surgery, surgical pathology, surgical technique, genito-urinary surgery, and the laboratory of surgical research.

- HARVEY CUSHING, M.D., F.R.C.S., *Moseley Professor of Surgery.*
 EDWARD H. NICHOLS, M.D., *Associate Professor of Surgery.*
 CHARLES A. PORTER, M.D., *Associate Professor of Surgery.*
 PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery.*
 J. BAPST BLAKE, M.D., *Assistant Professor of Surgery.*
 HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery.*
 ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery.*
 HUGH CABOT, M.D., *Assistant Professor of Genito-Urinary Surgery.*
 JAMES S. STONE, M.D., *Instructor in Surgery.*
 CHARLES L. SCUDDER, M.D., *Associate in Surgery.*
 WILLIAM E. FAULKNER, M.D., *Associate in Surgery.*
 JOSHUA C. HUBBARD, M.D., *Associate in Surgery.*
 DANIEL F. JONES, M.D., *Associate in Surgery.*
 JOHN HOMANS, M.D., *Associate in Surgery.*
 SAMUEL J. MIXTER, M.D., *Lecturer in Surgery.*
 GEORGE H. MONKS, M.D., M.R.C.S., *Lecturer in Surgery.*
 FRANCIS B. HARRINGTON, M.D., *Lecturer in Surgery.*
 FRED B. LUND, M.D., *Lecturer in Surgery.*
 FARRAR COBB, M.D., *Lecturer in Surgery.*

ERNEST A. CODMAN, M.D., *Lecturer in Surgery.*

FREEMAN ALLEN, M.D., *Lecturer in Anaesthesia.*

FRANK L. RICHARDSON, M.D., *Lecturer in Anaesthesia.*

WALTER M. BOOTHBY, M.D., *Lecturer in Anaesthesia.*

LEROI G. CRANDON, M.D., *Assistant in Surgery.*

LINCOLN DAVIS, M.D., *Assistant in Surgery.*

WALTER C. HOWE, M.D., *Assistant in Surgery.*

CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*

HORACE BINNEY, M.D., *Assistant in Genito-Urinary Surgery.*

BETH VINCENT, M.D., *Assistant in Surgery.*

J. DELLINGER BARNEY, M.D., *Assistant in Genito-Urinary Surgery.*

EDWARD P. RICHARDSON, M.D., *Assistant in Surgery.*

EMIL GOETSCH, M.D., *Assistant in Surgery.*

HARRY F. HARTWELL, M.D., *Fellow in Surgery.*

WILLIAM J. BRICKLEY, M.D., *Fellow in Surgery.*

HENRY C. MARBLE, M.D., *Alumni Assistant in Surgery.*

LEWIS H. WEED, M.D., *Arthur Tracy Cabot Fellow in Charge of the Laboratory of Surgical Research.*

HALSEY B. LODER, M.D., *Austin Teaching Fellow in Surgery.*

Instruction will be given by lectures, clinical lectures, demonstrations, and recitations, together with section teaching in the laboratories of surgical pathology and of surgical research, and in the wards and out-patient departments of the hospitals. Elective courses will be given in the laboratories of the Harvard Medical School, and in the wards and operating rooms of the hospitals.

Second Year. — The course in surgery begins in January of the second year. Lectures will be given Friday mornings at the Brigham Hospital, and Monday and Wednesday mornings at the Boston City Hospital. The afternoons in January will be given to surgical pathology, and to operative surgery and surgical technique on alternate days. Laboratory exercises in surgical pathology will be given three days a week in which will be studied the healing of wounds, fractures, diseases of the bones and joints, and such aspects of pathology as are of special surgical importance. Two clinical lectures a week, illustrating the lesions studied in the laboratory of surgical pathology, will be given at the Boston City Hospital. On two days a week the class will be divided into two sections, — one-half of the class will have an exercise in the general principles of surgery, the other half will have practical exercises in operative surgery.

The systematic course of lectures, clinical lectures, demonstrations and recitations will begin in February of the second year — one lecture, one

recitation and two clinical lectures a week. In the first two weeks the lectures and clinics will be devoted to surgical therapeutics. The general principles of surgery, beginning with trauma, hemorrhage, sepsis, etc., will be taken up in successive weeks, and illustrated by clinical lectures and demonstrations, until the end of the second half of the second year. During the first nine weeks of the second half of the second year, beginning February 1, section work in surgical technique will be given. Each student will have twelve laboratory exercises of two hours each, on the application of bandages and surgical apparatus, and the preparation and use of surgical material and dressings. Additional exercises will be given in sections, in the hospitals, on the practical application of bandages and surgical appliances. This course in surgical technique is designed to prepare the student for the required two months' "dresser" service in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. Satisfactory service in this capacity during the third year is a necessary requirement for the degree.

Third Year. — During the third year, one lecture, one recitation, and two clinical lectures a week will be given throughout the year. On Wednesday a lecture will be given at the Brigham Hospital at 12.30 P.M., for the whole class. On Tuesday at 12 M. two clinical lectures will be given, one at the Boston City Hospital and one at the Massachusetts General Hospital, either of which may be attended by the student having section work at one or the other hospital. During May twelve surgical hours, in morning and in afternoon exercises, will be devoted to genito-urinary surgery. During the two months' required out-patient "dresser" service, sections of the class will be assigned to short terms of service in the Genito-Urinary Departments.

Fourth Year. — Opportunity is afforded in the fourth-year elective courses for practical work in the wards and operating rooms of the hospitals, as well as for special instruction in operative surgery, surgery of children, and experimental surgery, for students who are qualified to pursue these subjects. For a description of the fourth-year courses offered by this department, see page 56.

SECOND YEAR

HOURS

Laboratory course in Surgical Pathology. Associate Professor NICHOLS. (H.M.S.) *Twelve three-hour exercises during January.* 36

Laboratory course in Surgical Therapeutics. Professor CUSHING and Associates. (H.M.S.) *Eight three-hour exercises during January.* 24

Clinical lectures in connection with the course in Surgical Pathology. Associate Professor NICHOLS. (B.C.H.) *Eight exercises during January.*

- Clinical lectures in Surgical Therapeutics. Professor CUSHING. (P.B.B.H.) *Four exercises during January.* 4
- Laboratory course in Surgical Therapeutics. Associate Professor PORTER and Assistant Professor LOTHROP and assistants. *Eighteen two-hour exercises for each student during the second half of the second year.* 36
- Lectures and demonstrations. Professor CUSHING, Associate Professors NICHOLS and PORTER, and Associates. (H.M.S.) *Once a week, second half-year.* 16
- Recitations. Assistant Professors LOTHROP and GREENOUGH. *Once a week, second half-year.* 16
- Clinical lectures. Associate Professor PORTER and Assistant Professor GREENOUGH (M.G.H.), Associate Professor NICHOLS and Assistant Professors LOTHROP and BLAKE (B.C.H.). *Twice a week, second half-year.* 32

THIRD YEAR

HOURS

- Lectures and demonstrations. Professor CUSHING, Associate Professors PORTER and NICHOLS, and Associates. *Once a week, first and second half-year.* 32
- Clinical lectures. Professor CUSHING. (P.B.B.H.) *Once a week, first and second half-year.* 32
- Clinical lectures given contemporaneously at the M.G.H. and B.C.H. Associate Professor PORTER and Assistant Professor GREENOUGH (M.G.H.) or Associate Professor NICHOLS and Assistant Professors LOTHROP and BLAKE (B.C.H.). *Once a week, first and second half-year.* 32
- (During April of the third year, four afternoon exercises will be devoted to the general surgery of children. Dr. JAMES S. STONE. (H.M.S. and Ch.H.) During May of the third year, four morning and eight afternoon exercises will be devoted to genito-urinary surgery. Assistant Professor HUGH CABOT. (H.M.S. and M.G.H.)
- Case teaching. Assistant Professor BLAKE. (H.M.S.) *Once a week, beginning February 1st.* 16
- Recitations. Assistant Professors LOTHROP and GREENOUGH. (H.M.S.) *Once a week, first half-year.* 16
- Exercises in sections. Each student has forty-eight exercises of three hours each. 144

Orthopedic Surgery

- ROBERT W. LOVETT, M.D., *Assistant Professor of Orthopedic Surgery.*
 ELLIOTT G. BRACKETT, M.D., *Associate in Orthopedic Surgery.*
 AUGUSTUS THORNDIKE, M.D., *Associate in Orthopedic Surgery.*
 ROBERT SOUTTER, M.D., *Instructor in Orthopedic Surgery.*
 ROBERT B. OSGOOD, M.D., *Instructor in Orthopedic Surgery.*

Third Year. — Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachusetts General Hospitals.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 60.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Assistant Professor LOVETT, and Drs. BRACKETT, A. THORNDIKE, SOUTTER, and OSGOOD. (H.M.S. and Ch.H.) *Every other week, second half-year.* 8

Roentgenology

- WALTER J. DODD, M.D., *Instructor in Roentgenology.*
 SAMUEL W. ELLSWORTH, M.D., *Assistant in Roentgenology.*
 PERCY BROWN, M.D., *Assistant in Roentgenology.*
 ARIAL W. GEORGE, M.D., *Assistant in Roentgenology.*
 GEORGE W. HOLMES, M.D., *Assistant in Roentgenology.*
 ALFRED LUGER, M.D., *Assistant in Roentgenology.*

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department. Arrangements can be made for such instruction with the Instructor in Roentgenology.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 55.

Obstetrics and Gynaecology

- CHARLES M. GREEN, M.D., *Professor of Obstetrics and Gynaecology.*
 WILLIAM P. GRAVES, M.D., *Professor of Gynaecology.*
 FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology.*
 MALCOLM STORER, M.D., *Instructor in Gynaecology.*
 ERNEST B. YOUNG, M.D., *Instructor in Gynaecology.*
 HOWARD T. SWAIN, M.D., *Instructor in Obstetrics.*

JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*

NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*

ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*

HENRY T. HUTCHINS, M.D., *Assistant in Gynaecology.*

ROBERT M. GREEN, M.D., *Assistant in Obstetrics and Gynaecology.*

RALPH L. REYNOLDS, M.D., *Alumni Assistant in Obstetrics.*

RICHARD G. WADSWORTH, M.D., *Fellow in Gynaecology.*

OBSTETRICS

Third Year.—Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 61.

SECOND YEAR

HOURS

Lectures. Professor GREEN. (H.M.S.) *Once a week, second half-year.* 16

THIRD YEAR

Lectures, recitations, and conferences on Obstetrics. Professor GREEN and assistants. (H.M.S.) *Twice a week, first half-year. Once a week, second half-year.* 48

Practical instruction in Clinical Obstetrics. Drs. SWAIN, TORBERT, MASON, DENORMANDIE, R. M. GREEN, and REYNOLDS. *Throughout the year.*

GYNAECOLOGY

Third Year.—Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 61.

THIRD YEAR

HOURS

Lectures or recitations. Professors GREEN and GRAVES, Assistant Professor NEWELL, and Drs. STORER and YOUNG. (H.M.S.) *Every other week, second half-year.* 8

Clinical exercises. Professor GRAVES (F.H. for W.), Dr. STORER (B.D.), and Drs. MASON and R. M. GREEN (B.C.H.). *In sections, throughout the year. Each student attends six exercises.*

18

Pediatrics

THOMAS MORGAN ROTCH, M.D., *Professor of Pediatrics.*
 JOHN L. MORSE, M.D., *Associate Professor of Pediatrics.*
 MAYNARD LADD, M.D., *Instructor in Pediatrics.*
 CHARLES H. DUNN, M.D., *Instructor in Pediatrics.*
 HENRY I. BOWDITCH, M.D., *Clinical Instructor in Pediatrics.*
 EDWIN H. PLACE, M.D., *Clinical Instructor in Pediatrics.*
 FRITZ B. TALBOT, M.D., *Clinical Instructor in Pediatrics.*
 ARTHUR A. HOWARD, M.D., *Clinical Instructor in Pediatrics.*
 PHILIP H. SYLVESTER, M.D., *Assistant in Pediatrics.*
 RICHARD M. SMITH, M.D., *Assistant in Pediatrics.*
 JAMES H. YOUNG, M.D., *Assistant in Pediatrics.*
 HENRY F. KEEVER, M.D., *Assistant in Pediatrics.*
 LOUIS W. GILBERT, M.D., *Fellow in Pediatrics.*
 WILLIAM W. HOWELL, M.D., *Fellow in Pediatrics.*
 HAROLD A. GALE, M.D., *Fellow in Pediatrics.*
 THEODORE W. ELY, M.D., *Fellow in Pediatrics.*
 WILLARD S. PARKER, M.D., *Fellow in Pediatrics.*

Third Year.—The material for instruction is drawn from the Infants' Hospital, the Children's Hospital, the Massachusetts Babies' Hospital, the South Department of the Boston City Hospital, and from the Children's Departments of the Massachusetts General Hospital and the Boston Dispensary. Lectures are given on such selected topics as development, living anatomy, the dietetics of early life, diphtheria, the exanthemata, and the gastro-enteric diseases, preparatory for the clinical teaching. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital; and the students are required to take an active part in the examination and discussion of the cases. Sectional teaching at the bedside both at the Children's and Infants' Hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. By means of the very large amount of Pediatric material in the contagious wards, the general subject of Pediatrics as connected with contagious diseases is

especially explained and illustrated. Exercises in case teaching are given in the latter part of the year preparatory for the examination. At the Children's Hospital the students are given instruction in lumbar puncture and in the serum examinations and other diagnostic methods. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

	THIRD YEAR	HOURS
Lectures. Professor ROTCH and assistants. (H.M.S.)	<i>Once a week throughout the year.</i>	32
Clinical lectures. Professor ROTCH and assistants. (Ch.H.)	<i>Once a week throughout the year.</i>	32
Section Teaching. (Ch.H., I.H., and S.D.B.C.H.)	<i>Throughout the year. Each student attends twenty-four exercises during the year.</i>	72

Dermatology and Syphilis

ABNER POST, M.D., *Professor of Syphilis.*

CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology.*

C. MORTON SMITH, M.D., *Instructor in Syphilis.*

FREDERICK S. BURNS, M.D., *Instructor in Dermatology.*

E. LAWRENCE OLIVER, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year. — A course of clinical lectures, clinical exercises, and half-hour examinations and quizzes extending throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 62.

	SECOND YEAR	HOURS
Clinical Lectures. Assistant Professor WHITE. (M.G.H.)	<i>Once a week, second half-year.</i>	16

THIRD YEAR

Lectures on the Anatomy and Therapeutics of the Skin. (Illustrated.)		
Assistant Professor WHITE. (H.M.S. and M.G.H.)	<i>Every other week, second half-year.</i>	8
Section work (clinical exercises). Drs. BURNS and OLIVER. (M.G.H.)	<i>Each student attends twelve exercises.</i>	36

SYPHILIS

Third Year. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR

HOURS

Lectures. Professor POST. (H.M.S.) <i>Every other week, second half-year.</i>	8
Clinical lectures. Professor POST and Dr. SMITH. (B.D.) <i>Once a week, September 23 to November 19.</i>	8
Clinical exercises. Professor POST and Dr. SMITH. (B.D.) <i>Each student attends six exercises, in sections.</i>	18

Diseases of the Nervous System

The Department of Diseases of the Nervous System is composed of the sub-departments of Neuropathology, Neurology, and Psychiatry.

- ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*
 EDWARD W. TAYLOR, M.D., *Assistant Professor of Neurology.*
 HERMAN M. ADLER, M.D., *Assistant Professor of Psychiatry.*
 EDWARD COWLES, M.D., LL.D., *Instructor in Psychiatry.*
 GEORGE A. WATERMAN, M.D., *Instructor in Neurology.*
 GEORGE T. TUTTLE, M.D., *Clinical Instructor in Psychiatry.*
 F. ROBERTSON SIMS, M.D., *Assistant in Neuropathology.*
 JAMES B. AYER, M.D., *Assistant in Neuropathology and Neurology.*
 GEORGE CLYMER, M.D., *Assistant in Neurology.*

NEUROPATHOLOGY

Second Year.—The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the pathological physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 52.

SECOND YEAR

HOURS

Lectures. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	12
Laboratory work. Professor SOUTHARD and assistants. <i>Two hours daily, afternoons in December.</i>	24

Written and practical tests. Professor SOUTHARD and assistants. *Afternoons in December.* 9

Demonstrations at State institutions, voluntary. Special.

Neurology

Second Year. — Clinical lectures are given at the Massachusetts General Hospital to the entire class, once a week throughout the second year. The object of the course is to give the student a first hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards.

Third Year. — At different times throughout the third year, clinical lectures on Neurology are given at the Massachusetts General Hospital. The class has also an opportunity to partake in the practical work in Neurology in whole sections. Short examinations and conferences are held at intervals during the year. Dr. JAMES J. PUTNAM will give a series of lectures in the spring term on the Principles and Practice of Psycho-Analysis.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 62.

SECOND YEAR

HOURS

Clinical lectures. Assistant Professor TAYLOR. (M. G. H.) *Once a week, second half-year.* 16

THIRD YEAR

Clinical lectures. Assistant Professor TAYLOR. (M. G. H.) *Once a week, November 19 to December 23 and during May.* 8

Section teaching. Each student attends 12 exercises in Neurology and and Psychiatry. 36

PSYCHIATRY

THIRD YEAR

During January, February, March, and April a clinical lecture will be given once a week at the Psychopathic Hospital. The different forms of mental disease will be discussed and patients exhibiting the symptoms under consideration will be presented.

During the second half-year a series of eight lectures will be given at the Harvard Medical School. This course is designed to present to the students

the modern points of view in regard to insanity and the psychoneuroses and the mental diseases of adolescence.

Supplementary instruction is given to the class in small sections in the wards and Out-Patient Department of the Psychopathic Hospital. Each student will examine and report on at least one case of insanity or mental defect.

THIRD YEAR

HOURS

Lectures.	Assistant Professor ADLER. (H. M. S.)	<i>Every other week, second half-year.</i>	8
Clinical lectures.	Assistant Professor ADLER. (P. H.)	<i>Once a week, January, February, March, and April.</i>	16
Section teaching.	Each student attends 12 exercises in Neurology and Psychiatry.		36

Ophthalmology

- MYLES STANDISH, M.D., S.D., *Williams Professor of Ophthalmology.*
 ALEXANDER QUACKENBOSS, M.D., *Instructor in Ophthalmology.*
 HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*
 FRED M. SPALDING, M.D., *Instructor in Ophthalmology.*
 GEORGE S. DERBY, M.D., *Assistant in Ophthalmology.*
 WILLIAM N. SOUTER, M.D., *Fellow in Ophthalmology.*

Third Year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 64.

THIRD YEAR

HOURS

Lectures.	Professor STANDISH. (H.M.S.)	<i>Every other week, first half-year.</i>	8
Clinical exercises.	Drs. QUACKENBOSS, HASKELL, DERBY, and SPALDING. (E. and E.I.) <i>In sections, first half-year. Twelve exercises for each student.</i>		36

Otology

- , *Walter Augustus Lecompte Professor of Otology.*
 EUGENE A. CROCKETT, M.D., *Assistant Professor of Otology.*
 PHILIP HAMMOND, M.D., *Instructor in Otology.*
 WILLIAM F. KNOWLES, M.D., *Assistant in Otology.*
 ALFRED M. AMADON, M.D., *Assistant in Otology.*

DAVID H. WALKER, M.D., *Assistant in Otology.*

GORDON BERRY, M.D., *Assistant in Otology.*

CALVIN B. FAUNCE, JR., M.D., *Assistant in Otology.*

Third Year. — Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 64.

THIRD YEAR

HOURS

Lectures. Assistant Professor CROCKETT. (H.M.S.) *Every other week, first half-year.* 8

Clinical exercises in sections. (E. and E.I.) *Every student attends twelve exercises, second half-year.* 18

Laryngology and Rhinology

ALGERNON COOLIDGE, JR., M.D., *Professor of Laryngology.*

J. PAYSON CLARK, M.D., *Instructor in Laryngology.*

FREDERIC C. COBB, M.D., *Instructor in Laryngology.*

JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*

ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology.*

HARRIS P. MOSHER, M.D., *Instructor in Laryngology.*

HARRY A. BARNES, M.D., *Assistant in Laryngology.*

GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*

JOHN H. BLODGETT, M.D., *Fellow in Laryngology.*

D. CROSBY GREENE, M.D., *Fellow in Laryngology.*

Third Year. — Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has twenty-four lectures during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 65.

THIRD YEAR

HOURS

Lectures. Professor COOLIDGE, assisted by Drs. GOODALE, MOSHER, and WRIGHT. (H.M.S.) *Every other week, first half-year.* 8

Clinical exercises. Professor COOLIDGE, and Drs. CLARK, MOSHER, BARNES, GREENE (M.G.H.), COFFIN, BLODGETT (B.C.H.), and COBB (B.D.). *In sections, second half-year. Twelve exercises for each student.* 18

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses, quarter-courses, and full-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before June 1. *No changes in electives will be allowed after the final assignments are made.*

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

No student may select a fourth-year elective, covering a subject still owing in the work of the first three years, without the consent of the head of the Department in writing.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

ANATOMY.

[*Under this Heading are included the Courses in Anatomy, Comparative Anatomy, Embryology, and Histology.*]

Anatomy I. Half-courses, afternoons, October and November, February and March.

This is a course in general applied and surgical anatomy designed to emphasize and explain such parts of general anatomy as are of practical

importance. Less important details are studied briefly or omitted altogether, according to their deserts, but ample opportunity is given to the student who desires it to review the chief facts of general anatomy or to pay especial attention to regions in which he is interested.

Instruction is by demonstrations, dissection, the study of frozen sections, and specimens and informal quizzes. The greatest importance is attached to the verification by the student in his own dissection of the facts presented by the instructor.

To enable the course to be satisfactorily adjusted to courses in other departments, a limited number of students may be permitted, on consultation with the instructor, to take one month with the first section and the other month with the second section.

N. B.—No one can take this course who has not passed his first-year anatomy.

Anatomy 2. Anatomy of Higher Vertebrates. Professor MINOT and assistants. Whole course, first half-year, at hours to be arranged with the instructors.

The object of this course is to give the student an exact knowledge of the anatomy of a few mammals and birds as a foundation for research in Anatomy and Embryology, or for experimental work in Physiology or Pathology.

A small number of mammals, including a carnivore, rodent, and ungulate, and one or two birds will be studied. Each student will be required to make thorough dissections of each animal and to prepare sections of the most important organs. There will be lectures upon the general principles of comparative anatomy.

College courses in the morphology of animals, especially of vertebrates, are a desirable preparation for this work.

Anatomy 3. Advanced Vertebrate Embryology. Assistant Professor LEWIS. Whole course, half-days for four months, or all day for two months, second half-year.

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

In this course sixteen hours per week (at times chosen by the student) are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction, will be required.

The *Manual of Human Embryology*, edited by Keibel and Mall, will be used as a text-book and original publications will be consulted. At the discretion of the instructor students may have access to the extensive embryological collection and to the collection of models, many of which were made in this laboratory.

Anatomy 4. Advanced Histology. Assistant Professor BREMER. Whole course, second half-year, at hours to be arranged with the instructor.

This course is intended to supplement the course in the Anatomy of Higher Vertebrates. The genesis as well as the adult histology of the various parts and organs is studied, and special stress is laid on their differences, developmental and structural, in the animals chiefly used in experimental medicine and animal economics. Students will also be required to master the principal technical methods used in Histology.

Anatomy 5. Half-course, afternoons, October and November. Professor MINOT. Structure and development of the eye, ear, and nasopharynx.

Anatomy 6. Half-course, afternoons, October and November. Professor MINOT. Structure and development of the urogenital system.

Anatomy 7. Half-course, afternoons, December and January. Professor MINOT. Development and histology of the nervous system.

PHYSIOLOGY.

Physiology 1. Half-courses, forenoons, afternoons, or all day, first half-year; afternoons, second half-year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Following are some suggestions for research which may readily be conducted in the Laboratory:—

Quantitative studies of human sensory and motor thresholds under various conditions, including the effects of stimulants and narcotics; the effects of toxins and poisons on the nervous system in experimental animals; the excitability of the "centers" of the medulla under various

conditions. Studies in the physiology of the central nervous system. Studies of problems in the movements of the stomach and intestines, and in the activities of glands of internal secretions.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, ear, and upper respiratory tract. Afternoons, except Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of five kinds, including (*a*) instruction in methods of diagnosis, depending upon bacteriological procedures; (*b*) instruction in methods of bacteriological diagnosis in use in health board laboratories, including the examination of waters and soils; (*c*) instruction in methods of opsonic-index work, with practical application; (*d*) special studies of spirochaetes and trypanosomes (open during both the first and second half-years, but should be taken for at least two months); (*e*) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

Note: Students are advised not to take all-day courses in this subject.

PATHOLOGY.

Pathology 1. Professor F. B. MALLORY. Half courses, all day, preferably second half-year.

This course is given in the pathological laboratory of the Boston City Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Pathology 2. Assistant Professor J. H. WRIGHT. Half-courses, all day, second half-year.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Each course limited to four men.

Pathology 3. Assistant Professor KARSNER. Half-courses, mornings or afternoons, second half-year.

This course is given in the laboratory of pathology, H.M.S., and is open to men acceptable to the head of the department, who wish to take up research work in pathological anatomy or in experimental pathology. The problems will be arranged by consultation between students and the head of the department. Not more than four men will be received in any one course.

Pathology 4. Professor W. T. COUNCILMAN.

This course will consist in following out and assisting in the general work of the laboratory of the Peter Bent Brigham Hospital, emphasis being placed upon the inter-relation of clinical and pathological work. One student of the fourth year will be taken into the laboratory from October first to February first, giving all his time to the work. From February first two students will be received for periods of not less than two months.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microorganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Research. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

NEUROPATHOLOGY.

Neuropathology 1. Half-courses, forenoons, afternoons, or all day, throughout the year, preferably the second half-year.

The case-method is followed. The report of a selected case will be worked up by the student (as if for publication), based upon the personal employment of approved neuropathological methods.

Limited to two during a given month. Consultation with the instructor in advance will secure the choice of a case in line with the student's later special work.

Neuropathology 2. Half-courses, forenoons, afternoons, or all day throughout the year.

Clinico-pathological methods in neurology and psychiatry and allied problems of internal medicine and surgery. Students taking this course for several months may, with the consent of the authorities, serve as clinical clerks or laboratory externes in the Psychopathic Hospital or, under special conditions, in other State institutions. Students will be permitted to attend staff-conferences at the institutions where their work is carried on. They may be required to submit reports or theses concerning observations made.

The clerkships and externships are limited to two in a given month. The instructor should be consulted in advance.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM.

A voluntary conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry and for graduate students taking allied courses has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by students.

PREVENTIVE MEDICINE AND HYGIENE.

Preventive Medicine and Hygiene 1. Half-course, afternoons, second half-year.

This course will consist in laboratory instruction, sanitary excursions, and, in part, of special research. The laboratory instruction will comprise analysis of air, soil, water, adulterations of foods, milk and its relation to the public health, investigations of disinfectants, studies in immunity, vaccination, the transmission of the communicable diseases, and epidemiology.

Each course limited to ten men. Students must see the instructor in charge before enrolling in this course.

PHARMACOLOGY.

Pharmacology. Half-courses, forenoons, afternoons or all day, first half-year.

MEDICINE.

Medicine 1. Full courses, all day, throughout the year.

This work will be given at the Massachusetts General Hospital. Each half-course will be limited to twelve students. Students will serve as clinical clerks in the wards of the hospital and will have opportunity to systematically study the patients. Work in the wards will be supplemented by work in the Out-patient Department. Ample facilities will be furnished for the laboratory investigation of the patients. This course will be given under the supervision of Professor EDSALL and Assistant Professor CABOT. The courses will be given for two months each continuously, beginning October 1st, December 1st, February 1st, and April 1st. Each student electing the course must take it for at least two consecutive months unless he has already had a course in Medicine 2, in which case he may take one or more further months in this course.

Medicine 2. Full courses all day throughout the year.

This work will be given at the Peter Bent Brigham Hospital. Each half-course will be limited to eight students. Students will serve as clinical clerks in the wards of the Hospital and will have opportunity to

study systematically the patients. Work in the wards will be supplemented by work in the Out-patient Department. Ample facilities will be furnished for laboratory investigation of patients. This course will be given under the supervision of Professor Christian and Dr. Frothingham. The courses will be given for two months each, beginning October 1st, December 1st, February 1st, and April 1st. Each student electing the course must take it for at least two consecutive months unless he has already had a course in Medicine 1, in which case he may take one or more additional months in this course.

TROPICAL MEDICINE

Tropical Medicine 1. Tropical Protozoölogy. Quarter-course, mornings, November.

The course in Protozoölogy will include a general discussion of the morphology and life history of the more important human protozoan parasites, such as the amoebae, flagellata (trypanosomes, the parasites of kala azar and oriental sore), sporozoa (malarial parasites) and ciliata. Their relations to their definitive and to intermediate hosts will also be discussed, together with phenomena of immunity. Methods for the cultivation of certain parasites and suitable procedures for collecting, staining, and mounting will be discussed as far as possible in the time allotted.

Tropical Medicine 2. Tropical Pathology. Quarter-course, afternoons, November.

This course will include the study of the macroscopic and histological lesions of as many of the important tropical diseases as it is practicable to consider in the time allotted to the subject.

Tropical Medicine 3. Tropical Bacteriology. Quarter-course, afternoons, January.

This course will include the identification of the etiological factor and the diagnosis of the infection by laboratory methods, such as cultures, serum reactions, and the inoculation of animals in as many of the important tropical diseases as the time allotted to the subject will allow for.

Tropical Medicine 4. Tropical Entomology. Quarter-course, afternoons, February.

This course will include general lectures on the structure and classification of the Arthropoda, followed by a more detailed account of the Arthropoda known to be concerned and likely to be concerned in the transmission of human and animal diseases or in the inflictions of local injuries and physiological disturbances.

Laboratory work and demonstrations will also constitute an important feature and will provide, as far as is possible during the time allotted, for training in the dissection of insects, in the principal methods of studying their life histories and habits and in their identification by means of dichotomic tables and from technical descriptions.

Tropical Medicine 5. Clinical Laboratory Work in Tropical Diseases. Quarter-course, afternoons, April.

This course will be practical and will cover methods of obtaining and the technic of examination of materials from the more important tropical infections where a diagnosis may be made or aided by the microscope.

Tropical Medicine 6. General Course in Tropical Medicine. Quarter-course, mornings, February.

Provided arrangements for clinical work in tropical diseases are completed by that time, this course will consist of lectures, laboratory work, and bedside demonstrations upon as many of the important tropical diseases as it is possible to consider in the time allotted to the course.

A course in Helminthology may be obtained by special arrangement.

ROENTGEN RAY.

Roentgen Ray 1. Half-course, all day, throughout the year.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 9 A.M. to 12 M. at the Massachusetts General Hospital and Carney Hospital, Drs. WALTER J. DODD and PERCY BROWN. Afternoons from 3 to 5 P.M. at the Children's Hospital, Dr. ARIAL W. GEORGE.

Roentgen Ray 2. Quarter-courses, mornings, throughout the year.

This course is practically the same as that given in the mornings in the above course.

PEDIATRICS.

Pediatrics 1. Half-courses, all day, throughout the year.

The work will consist of instruction in the wards and out-patient departments of the Children's Hospital, of the Infants' Hospital, of the Children's Department of the Massachusetts General Hospital, in the contagious wards of the South Department of the Boston City Hospital, at the Children's Tubercular clinic of the Burroughs Place Dispensary, at the Massachusetts Babies' Hospital, and in the Children's wards and out-patient department of the Boston Dispensary. The students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be taken up with teaching in the various

wards and out-patient departments. There will be given two lectures on the significance of the ear in early life by Dr. CROCKETT in the wards of the Infants' Hospital. Especial instruction will be given at the Massachusetts Babies' Hospital in the examination and preparation of milk modifications in connection with substitute feeding, and here instruction will also be given in connection with the subject of wet nurses.

Four hours in each week will be spent at the South Department. Here instruction in general Pediatrics as connected with contagious diseases will be demonstrated and whenever possible the technique of intubation will be shown.

Two lectures on preventive medicine, in connection with the feeding of infants, will be given at the Milk and Baby Hygiene Stations.

Each student will have assigned to him a case in the wards of the Children's Hospital for the purpose of making a study of that especial disease. Each student will also have cases assigned to him on two afternoons of each week, when in the early part of the afternoon instruction in physical examination will be given by the various instructors and in the latter part of the afternoon these cases will be discussed with one of the senior members of the Department. Instruction will also be given in the laboratory of the Children's Hospital in clinical work connected with lumbar puncture and with the examination of the spinal fluid, blood and urine.

Dr. GEORGE will give practical instruction by means of Roentgen plates in the normal development of early life and in the more important diseased conditions. The class will be taken to a model farm, where everything practical pertaining to the milk supply for infants and young children will be taught. In connection with this, practical instruction will be given in a research milk laboratory in the writing of prescriptions and in the routine of laboratory work.

The examination will be an oral one, held by the Professor of Pediatrics.

SURGERY.

The electives offered by the Department of Surgery consist of half-courses (occupying the whole day for one month or the mornings of two months) and quarter-courses (either mornings or afternoons for one month). They are so arranged that they may be themselves combined in different groups or taken in combination with quarter-courses offered by other departments. No student will be permitted to take more than four half-courses in surgery without special permission of the head of the department.

1	2	3	4	5	6	7	8	9	10
All day. 1 month. P.B.B.H. Dresser. Practical Surgery. Oct. to May.	All day 1 month. B.C.H. Relief. Dresser. Practical Surgery. Oct. to May.	Forenoons. 1 month. M.G.H. Observation. Oct. to May.	Forenoons. 1 month. B.C.H. Voluntary Assistant. Oct., Nov., Feb., Mar.	Afternoons. 1 month. Operative Surgery. H.M.S. Dec., Jan., Apr., May.	Forenoons. 1 month. B.C.H. G. U. Sur- gery. Thorndike Feb. to May.	Forenoons. 1 month. M.G.H. G. U. Sur- gery. Cabot. Oct. to Jan.	All day. 1 month. B.C.H. Labo- ratory Surgical Pathology. Nichols and Loder. Nov., Dec., Feb., Mar. 2 men only.	Afternoons. 1 month. Children's Hospital. Wards and O.P.D. Oct., Nov., Feb., Mar.	Forenoons. 2 months. M.G.H. Clinical Surgical Pathology. Oct. to May.
Half- course.	Half- course.	Quarter- course.	Quarter- course.	Quarter- course.	Quarter- course.	Quarter- course.	Half- course.	Quarter- course.	Half- course.

Surgery 1. Clinical Clerk Service at the Brigham Hospital. Half-courses, all day, for one month, throughout the year. Peter Bent Brigham Hospital. Dr. HARVEY CUSHING.

Students will serve as assistants to the hospital staff in the routine ward, operating room and laboratory work of the hospital. The course is limited to six students and preference will be given to those taking two consecutive months.

Surgery 2. Practical Work in Surgery. Half-courses, all day, for one month, throughout the year. Boston City Hospital and Relief Station. Dr. J. BAPT BLAKE.

The student will be assigned as a "dresser" and will be under the hospital administration. He will be given opportunity to take histories, make examinations and diagnoses, make dressings, assist at operations, and administer anesthesia. He will obtain abundant experience in traumatic surgery, fractures and emergency cases, and will follow the after-care and convalescence of such cases as come under his charge. He will receive instruction and will be examined from time to time in the performance of his duties by the instructor.

Surgery 3. Observation of Surgical Cases. Quarter-courses, forenoons, for one month, throughout the year. Massachusetts General Hospital. Dr. C. A. PORTER.

The student will be given opportunity to study the surgical material of the hospital. Instruction will be given in case-taking, examination of patients, diagnosis, surgical treatment, and the after-care of surgical patients. Laboratory and X-ray methods of diagnosis will be demonstrated. Operations on cases previously examined by the class will be attended and the pathological material obtained from operations and autopsies will be studied. Collateral reading on surgical subjects will be required.

No student will be allowed to repeat this course except with the special permission of the head of the department.

Surgery 4. Quarter-course, forenoons, for one month, given in October, November, February, and March. Boston City Hospital. Dr. J. B. BLAKE.

The student will be assigned to the first surgical service of the Boston City Hospital as a "voluntary assistant" and will be under the hospital administration. He will be given practical work for two hours each morning in the wards and operating rooms, and the remaining time will be spent in the study or observation of special surgical cases or problems.

Surgery 5. Operative Surgery. Quarter-course, afternoons, for one month, December, January, April, and May. Dr. HARVEY CUSHING and assistants. Harvard Medical School, Laboratory of Operative Surgery and Laboratory of Surgical Research.

Instruction will be given by lecture and by demonstration on the cadaver in the classical and important operations and operative procedures, which will then be performed by the student under the supervision of the instructor. An extra charge will be made for material used in this course.

Surgery 6. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, February, March, April, and May. Dr. PAUL THORNDIKE. Boston City Hospital.

Instruction will consist of ward work, taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases and seeing the end results. Conferences with the students will be held from time to time.

Surgery 7. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, October to January, inclusive. Dr. HUGH CABOT. Massachusetts General Hospital.

The student will be assigned as assistant in the clinic and will take part in the routine work, case-taking, examination of patients, diagnosis and treatment. Operations and the after-care of major operative cases will be followed in the wards. Instruction will be given in cystoscopy and in laboratory methods of diagnosis. (Courses 5 and 6 may be taken together as a half-course in Genito-Urinary Surgery.)

Surgery 8. Half-courses, all day except Saturdays and Sundays, for one month, November, December, February, and March. Associate Professor E. H. NICHOLS and Dr. H. B. LODER. Boston City Hospital and Laboratory of Surgical Pathology.

This course will include ward visits, operations, etherization, microscopy and examination of pathological specimens from operations at the Boston City Hospital. The afternoons will be spent at the Laboratory of Surgical Pathology at the Harvard Medical School. The instruction will include experimental operations along pathological lines suggested by the instructors, with compilation of literature and interpretation of operative results. Limited to two men. Suitable students will be permitted to repeat the course. With the special permission of the instructor this course may be taken by two additional men as a quarter-course, occupying the afternoons of one month.

Surgery 9. Quarter-courses, afternoons, for one month, October, November, February, and March. Dr. JAMES S. STONE and assistant surgeons of the Children's Hospital.

The general surgical diseases of children, fractures, infections, hernia, congenital malformations, etc. The student will be assigned cases in the surgical out-patient department and in the wards of the hospital for examination and diagnosis. Treatment will be discussed with the instructor. Opportunity will be given to qualified students to do practical work as dressers, Monday, Tuesday, Wednesday and Saturday afternoons in the out-patient department; Thursday and Friday afternoons the class will meet in the wards and operating rooms of the hospital.

Surgery 10. Clinical Surgical Pathology. Half-courses, forenoons, for two months, throughout the year. Dr. W. F. WHITNEY and Dr. HARRY F. HARTWELL. Massachusetts General Hospital.

The course will be devoted to the study of pathological specimens from the surgical clinic, with especial reference to the use of the microscope in immediate diagnosis. Opportunity will be offered for the systematic study of some particular line of cases, both clinically and pathologically. The work will be supplemented with conferences and demonstrations in the Warren Museum. Each student will be expected to supply himself with a microscope.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Half-courses, afternoons, throughout the year.

The fourth-year elective course is planned to continue the third-year required course, and is suited to those who have had some acquaintance with orthopedic surgery. The exercises are clinical, combined with practical work in the out-patient orthopedic clinics and in the in-service of the Children's Hospital and in the in-service of the Massachusetts General Hospital. The instruction is given daily each afternoon in the week, and is so arranged that opportunities are given for the examination of cases, with systematic note taking, followed by instruction successively in symptoms, diagnosis, the principles and details of treatment, including instruction in the common operations of orthopedic surgery.

Each course limited to five men.

Orthopedic Surgery 2. Quarter-course, afternoons, October, December, February, and April.

Full courses are offered for those who desire and are qualified for more complete instruction. The large amount of clinical material

under the direction of the department gives ample opportunity for study and investigation.

Each course limited to four men.

OBSTETRICS AND GYNAECOLOGY.

Obstetrics and Gynaecology 1. Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. He will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor GREEN (Oct. to Jan.) and Assistant Professor NEWELL (Feb. to May), assisted by Drs. YOUNG, MASON, and R. M. GREEN, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, and by Professor GRAVES, assisted by Dr. HUTCHINS, at the Free Hospital for Women, Brookline. These clinics afford ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be required to study, and report on, pathological specimens removed by operation, under the supervision of Professor MALLORY or Professor GRAVES.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

DERMATOLOGY AND SYPHILIS.

Dermatology and Syphilis 1. Half-courses, forenoons, October, November, December, and January.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique. Students electing Course 1 or 2 are strongly recommended to elect Course 3.

Dermatology and Syphilis 2. Quarter-courses, forenoons, October, November, December, and January.

The work in this course will be the same as in Course 1, with the exception that it extends over one month instead of two.

Dermatology and Syphilis 3. Quarter-courses, afternoons, in January or in February, but not in both months.

This course consists of microscopical work and is given on five afternoons at the Harvard Medical School. Students electing this course will be trained in microscopical technique and in the histological study of the commoner diseases of the skin.

Dermatology and Syphilis 4. Quarter-courses, forenoons, October and November.

Instruction in clinical syphilis will be given daily at the Boston Dispensary.

NEUROLOGY AND PSYCHIATRY.

Neurology and Psychiatry 1. Half-courses, forenoons, throughout the year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows:—

- (1) Daily systematic conferences on neurological topics.
- (2) History-taking, and personal examinations of patients at the out-patient department of the Massachusetts General Hospital.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.

(5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, *e. g.*, Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

The instruction in psychiatry will be as follows, subject to modifications:—

(1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.

(2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff, at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.

(3) Clinical instruction and demonstrations at the Psychopathic Department, Boston State Hospital, one forenoon in each week during October and November, for all electing this course. Also an individual case will be assigned to be reported and discussed at the regular evening conference during the year.

In this course, should the student desire, he may give his entire time to neurology.

Neurology and Psychiatry 2. Quarter-courses, forenoons throughout the year.

Instruction in these courses will be similar to that of *Neurology and Psychiatry 1*, except that it will continue for one month instead of two, and will not include psychiatry except as cases of mental disease are incidentally met with at the neurological clinic. The instruction will be given at the Massachusetts General Hospital.

Neurology and Psychiatry 3. Half-courses, forenoons or all day throughout the year.

A clinical course in which, by permission of the authorities, the wards and laboratories of the Psychopathic Hospital may be used and the daily staff-conferences attended. In addition to a complete representation of mental diseases, there is much material of a neurological and general medical interest, so that students are advised to take the work later rather than earlier in the year. Under certain circumstances students taking the course for several months may be appointed to internships by the hospital authorities.

Neurology and Psychiatry 4. Half-courses, all day throughout the year.

Special research work under conditions to be arranged in advance.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM

A voluntary weekly conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry, and for graduate students taking allied courses has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by students.

OPHTHALMOLOGY.

Ophthalmology 1. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations, with opportunity to witness their exemplification in the operative work of the hospital.

Ophthalmology 2. Quarter-course, forenoons, in February.

This course will be devoted to instruction in the use of the ophthalmoscope.

OTOLOGY.

Otology 1. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to clinical instruction. Each course limited to three men.

Otology 2. Otoscopy and Diagnosis. Dr. D. H. WALKER and assistant.

Quarter-course, forenoons, October, November, December, and January.

This course will be given at the Massachusetts Charitable Eye and Ear Infirmary. The student will be instructed in the objective examination of the ear, in making hearing tests and in the determination of disturbances of equilibration. He will be given an opportunity to make diagnoses in a great variety of cases. Each course limited to three men.

Otology 3. Histology and Pathology of the Ear. Dr. A. M. AMADON. Quarter-course, mornings in January, for students who have taken either Course 1 or 2.

This course will be given at the Medical School. Instruction will consist of directed reading, illustrated by specimens, and in laboratory work under the personal supervision of the instructor. Ability to read German is necessary. Each course limited to three men.

LARYNGOLOGY.

Laryngology 1. Quarter-courses, forenoons, throughout the year, except March. Massachusetts General Hospital.

These courses are chiefly clinical in character; but in addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Each course limited to four and preference will be given to men taking the course for two months.

Laryngology 2. Drs. R. A. COFFIN and J. H. BLODGETT. Quarter-courses, forenoons, February, March, and April. Boston City Hospital.

These courses are clinical and include both ward and out-patient service in the Department for Diseases of the Nose, Throat, and Ear.

Each course limited to two and preference will be given to men taking the course for two months.

EXAMINATIONS

There will be two kinds of examinations, general and practical. Two general examinations, each both oral and written, will be required of the candidate for the M.D. degree, the first after the completion of the second year, and the second after the completion of the fourth year of medical study. Practical examinations will be held in the various subjects of the curriculum.

For the first general examination the student may choose either June or September, but no student will be admitted to this examination until he has completed the courses included in the examination, and has passed practical examinations in these various courses. The subjects comprised in the first general examination will be Anatomy, Histology and Embryology, Physiology, Biological Chemistry, Pathology and Bacteriology. This examination further shall assume and require an elementary knowledge of Physics, Inorganic and Organic Chemistry, and Biology.

For the second general examination the student may choose either June or January, but no student will be admitted to this examination until he has passed satisfactorily the first general examination, has completed four years of medical study in four different calendar years, including at least one year of resident study at the Harvard Medical School, has completed the courses included in this examination, and has passed practical examinations in these courses. The subjects comprised in the second general examination will be Preventive Medicine and Hygiene, Pharmacology, Medicine, Surgery, Pediatrics, Obstetrics, Gynaecology, Dermatology, Syphilis, Neurology, Psychiatry, Ophthalmology, Otology and Laryngology.

No student who has failed to pass a general examination will be permitted to repeat the examination within the calendar year in which he failed. Any student who fails three times in a general examination will be debarred from further attempts.

The practical examinations will be conducted by the several Departments, and the student may choose whether he will take the practical examinations at the end of each course, or near the time of the opening of the following academic year.

In addition to the above examinations every student is required : —

To dissect the three parts of the body to the satisfaction of the demonstrator ;

To receive practical instruction in anaesthesia ;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year ;

To take charge of and report on six cases in Obstetrics, under supervision and instruction ;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

Every student having entered the Medical School previous to 1912-13, after two failures to pass in any subject, must give notice twenty-four hours in advance at the Dean's Office of his intention to take each subsequent examination in that subject and pay a charge of three dollars. This will not apply to students entering in 1912-13 or thereafter.

DEGREES

DEGREE OF DOCTOR OF MEDICINE

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

DEGREE OF DOCTOR OF PUBLIC HEALTH

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of Doctor of Public Health must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of Doctor of Public Health, and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medicine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of Doctor of Public Health. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of Doctor of Public Health.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students.

Candidates for the degree of Master of Arts must be Bachelors of Arts of Harvard College, or Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences. Candidates must pursue an approved course of study in medical science for at least one year.

Candidates for the degree of Doctor of Philosophy must fulfil certain preliminary requirements, must devote to approved advanced studies not less than two years, — at least one of which must be spent in residence at this University, and must pass general examinations and present an account of original work in an accepted thesis, before being granted the degree.

Further information concerning these degrees may be obtained from Professor WALTER B. CANNON, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

DEGREE OF DOCTOR OF MEDICINE

The fees are :—For matriculation, five dollars; for instruction (including laboratory charges except breakage, damage and loss of apparatus) two hundred and twenty-five dollars for each year (if in two payments, at the first, one hundred and thirty-five dollars; at the second, ninety dollars) for a half-year alone, one hundred and thirty-five dollars.* The matriculation fee and the instruction fee (if in two payments, the first instalment thereof) are to be paid to the Bursar punctually at the beginning of the academic year, without the presentation of a bill; and the second instalment is to be paid on or before January 31. All charges for breakage, damage and loss of apparatus are payable to the School in accordance with the requirements established by the several departments in which they occur. A student may rent a microscope from the School upon application to the Committee on Microscopes. A deposit of one dollar with the Dean will entitle the student to the use of a locker in the School buildings.

No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

* Students who were members of the School in 1912-13 or earlier will be allowed to complete the course for the fees prescribed in the Catalogue of 1912-13.

DEGREE OF DOCTOR OF PUBLIC HEALTH

A fee of \$150 is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

STILLMAN INFIRMARY FEE

Not later than October 5 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

BOND REQUIRED OF STUDENTS

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School and have subsequently received their bond from the Bursar.

WITHDRAWAL FROM THE SCHOOL

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a

written notice of the student's withdrawal from the School. *No degree can be granted until the student has paid the full tuition fee for each year (first, second, third, fourth) in which he has been registered as a member of the School.*

If a student withdraws from the School for part of a year for good and sufficient reason as determined by the Faculty, he may leave his fees deposited with the Bursar to be used at some later date for instruction equivalent to that which he missed by his withdrawal. If a student shortens his four years' work by working in the Summer School of Medicine, he must still pay a full tuition fee for each year he is registered as a member of the School.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students, who are admitted freely to the Out-Patient departments, wards and operating rooms of these hospitals:—

The Peter Bent Brigham Hospital.—The construction of this general hospital has practically been completed, and patients have already been admitted since February, 1913. The hospital is for general medical and surgical cases, and is situated on ground adjacent to the Medical School buildings. There are in all about 250 beds, and there is a medical and surgical out-patient department which is open for patients throughout the twenty-four hours. Dr. HENRY A. CHRISTIAN, Hersey Professor of the Theory and Practice of Physic, and Dr. HARVEY CUSHING, Moseley Professor of Surgery, in the Harvard Medical School, have been appointed by the trustees of the Hospital Physician-in-chief and Surgeon-in-chief respectively.

The Collis P. Huntington Memorial Hospital.—This Hospital, which has been erected by the Cancer Commission of Harvard University on the Medical School grounds, affords opportunity for the study of human tumor cases, with the advantage of a close approximation of clinical and laboratory facilities. The aim of the hospital is the study of special problems with the view of adding to the knowledge of the natural history and the rational treatment of tumors, and also to be of public service in affording means for early diagnosis and in carrying out treatment or giving advice regarding therapeutic measures. Accommodations are provided for twenty-four in-patients; out-patients are also received at stated hours.

The Massachusetts General Hospital.—During the past year, six thousand eight hundred and ninety-six patients were treated in the wards, five

thousand five hundred and one patients were treated in the accident ward, and there were one hundred thirty-six thousand and ninety-five visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the surgical building. Last year there were four thousand and sixty-three operations in the house and three thousand and sixty-five in the Out-Patient Department and Accident Ward. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedics, and Diseases of the Genito-Urinary System. Two Dalton scholarships, of \$500 each, are open annually to the house pupils.

The Boston City Hospital.—During the past year, seventeen thousand and four cases were treated in its wards, and there were over one hundred and ninety-nine thousand visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, six thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In this hospital, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over four thousand seven hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than eight hundred patients were delivered during the last year in the Hospital. In the out-patient department, nearly two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary.—About one hundred and ten thousand visits were made by patients at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of

Medicine and Surgery. A well-equipped Hospital for Children, with a capacity of thirty beds (chiefly for medical cases), is attached to the Dispensary.

Infants' Hospital (Rotch Memorial Building). — The wards of the Hospital are devoted entirely to children under two years of age. During the past year about two hundred and ninety-five cases were treated in the wards and twelve thousand six hundred and seventy-three visits were made by children of all ages to the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than seventeen hundred cases were treated in the wards and about thirty thousand visits were made to the out-patient departments. Instruction in pediatrics, surgery, and orthopedic surgery are given by members of the hospital staff.

The McLean Hospital. — During the past year a daily average number of two hundred and twenty patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, occupation, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, pathological, chemical, and psychological work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital. — During the past year sixteen hundred and twenty-three patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Besides regular commitments, emergency, voluntary and temporary care cases are received; the whole number of patients admitted last year was seven hundred and sixty-two, including many instructive examples of the various forms of mental disease.

The Psychopathic Hospital. — This is the receiving hospital of the Boston State Hospital, situated on Fenwood Road, one block removed from the Medical School grounds. The hospital was opened to patients in June, 1912. It has one hundred beds and receives patients at the rate of over one thousand five hundred a year. The Out-Patient Department receives patients at the rate of about one thousand a year. This large

admission rate insures the presence at all times in the hospital wards of a varied clinical and pathological material.

The Massachusetts Charitable Eye and Ear Infirmary. — Over sixty-one thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor. — This Hospital is designed particularly for the treatment of chronic diseases. It has three hundred and twenty-five beds, with an average daily number of patients of about three hundred. In connection with it is a maternity department with an average of twenty-seven children and twenty-nine births. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 75 per cent of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Free Hospital for Women. — This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital has a capacity of sixty-seven beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week beginning at nine o'clock in the morning and at three o'clock in the afternoon excepting Saturday afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

THE CANCER COMMISSION OF HARVARD UNIVERSITY

The Cancer Commission of Harvard University was founded in 1899, by the late Mrs. Caroline Brewer Croft, who left in her will a sum of money for the investigation of the cause and treatment of cancer. Dr. J. Collins Warren and Dr. Henry K. Oliver were the Trustees of this fund. Since that time other sums have been contributed for cancer research and the Cancer Commission of Harvard University was organized in 1909, consisting of the following members: J. Collins Warren, M.D., Chairman; Henry K. Oliver, M.D., and J. Collins Warren, M.D., for the Caroline Brewer Croft Fund; Henry P. Walcott, M.D., and Arthur T. Cabot, M.D., for the Corporation of Harvard College; William T. Councilman, M.D., and Theobald Smith, M.D., for the Harvard Medical School. To fill the vacancy caused by the death of Dr. Arthur T. Cabot, Dr. Edward H. Bradford was appointed by the Corporation in 1912; Mr. Arthur Adams was also appointed Treasurer, and Dr. Robert B. Greenough, Secretary.

Under this Commission research on cancer problems has been carried on, and five reports of research work have been published. Investigations were carried on in the laboratories of the Harvard Medical School, and at the Massachusetts General Hospital until April, 1912, when the Collis P. Huntington Memorial Hospital (page 70) was completed. The work of the Cancer Commission is at present carried on in the laboratories of the Harvard Medical School and in the Huntington Hospital. E. E. Tyzzer, M.D., Assistant Professor of Pathology, is Director; Thomas Ordway, M.D., Instructor in Medicine, is Physician in charge of the Hospital, and Ellis Kellert, M.D., is Assistant Physician; Henry A. Christian, M.D., Consulting Physician; Robert B. Greenough, M.D., Consulting Surgeon. Miss I. W. Mason is Matron and Superintendent of the Hospital.

In April, 1912, subscriptions were obtained for the establishment of a physical laboratory in connection with the work of the Commission, and William Duane, Ph.D., was appointed a Fellow of the Commission, to carry on research work in Radio-active substances, and their preparation for therapeutic use in the treatment of tumors.

During the past year, 1912-13, fifty-eight new patients were cared for in the wards of the hospital, and seventy-nine patients were seen as out-patients. The wards, operating-rooms and laboratories of this hospital are open to the students of the Harvard Medical School for undergraduate instruction and for work on special problems, both of a clinical and laboratory character. Abundant autopsy material is available for pathological demonstrations, as well as a very valuable amount of clinical material for diagnosis.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, many of them preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in each of the four laboratory buildings contain the literature of the subjects taught in the building. These libraries are open to students daily and contain about 23,000 volumes, 30,000 pamphlets, and receive 258 different current periodicals. The students have a small general medical library of over 400 volumes and about 20 current periodicals for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 177,000 bound volumes and 56,000 pamphlets, and nearly 650 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and fifty dollars each, and of the last, two hundred and seventy-five dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

THE JAMES JACKSON CABOT FELLOWSHIP; with an income of three hundred and fifty dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a fellowship "to aid and encourage practical work in scientific medicine."

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Pro-

fessor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of five hundred and seventy-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand dollars. Founded in 1910 by **FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D.** "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

WILLIAM O. MOSELEY, JR., TRAVELLING FELLOWSHIPS; two, with a stipend of one hundred and seventy-five dollars each, for the purpose of studying medicine in Europe. In January, 1912, Mrs. William O. Moseley left a bequest of seventy-four thousand dollars to establish two travelling Fellowships, to be granted annually to two men who have attended the Harvard Medical School for three or four years, and who have given evidence of their diligence and ability, the election of such men to be made by the President and proper officers connected with the Medical School.

ARTHUR TRACY CABOT FELLOWSHIP. In 1913, Dr. and Mrs. Frederick C. Shattuck gave twenty-five thousand dollars for the establishment of a Fellowship in Surgery in memory of Arthur Tracy Cabot, M.D., of the Class of 1872, Fellow of the Corporation. The holder of the Fellowship is not ordinarily to engage in active private practice while holding it but to devote himself to the advancement of Surgery whether in the United States or elsewhere. The nomination to this Fellowship is by preference to be in the hands of the Moseley Professor of Surgery.

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

SCHOLARSHIPS

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred and twenty-five dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

GEORGE HAVEN SCHOLARSHIPS, with an income of eleven hundred dollars, was founded in 1913 from a bequest under the will of George Haven, the income to be used annually for scholarships to deserving students of the first year in the Medical School, the amount of such scholarships to be at the discretion of the Scholarship Committee.

THE LEWIS AND HARRIET HAYDEN SCHOLARSHIP for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income, two hundred and fifty dollars, may be divided between two or more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

WILLIAM OTIS JOHNSON SCHOLARSHIP, with an income of one hundred and seventy-five dollars, was founded in 1912 from a bequest under the will of Mrs. William O. Johnson, in memory of her husband, William Otis Johnson, M.D., of the Class of 1845.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of three hundred dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

THE JOSEPH PEARSON OLIVER SCHOLARSHIP, with an income of four hundred dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of three hundred dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

THE JOHN THOMSON TAYLOR SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious students needing assistance. The next assignment in the Medical School will be made in 1914.

JAMES EWING MEARS SCHOLARSHIP IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of any degree from Harvard University. For further particulars, see University Catalogue for 1912-13, page 584.*

THE W. GRAHAM BOWDOIN, JR., SCHOLARSHIP; with an income of two hundred and fifty dollars, "to be awarded each year to a deserving student from the State of Maryland, who may be registered in any department of the University." For further particulars, see University Catalogue for 1912-13, page 544.

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further in the University Catalogue for 1912-13, page 556.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. This Scholarship, founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee or Kentucky. The terms of gift are quoted further on page 603, of the University Catalogue for 1912-13.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever and Hayden Scholarships must be handed to the Director of Scholarships on or before *November 30*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

BOYLSTON MEDICAL PRIZES

These prizes, which are *open to public competition*, are offered for the best dissertation on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1913, no prize was awarded.

For 1915 there is offered a prize of three hundred dollars and the Boylston Prize Medal, for the best dissertation on the results of original research in medicine, the subject to be chosen by the writer.

Dissertations entered for this prize must be in the hands of the Secretary, H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before December 31, 1915.

In awarding these prizes, preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear, in place of the author's name, some sentence or device, and must be accompanied by a sealed packet, bearing the same sentence or device, and containing within the author's name and residence.

Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within *one year* after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

1. That the Board does not consider itself as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
2. That, in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows of Harvard College, and consists of the following physicians: WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; THEOBALD SMITH, M.D., WILLIAM T. PORTER, M.D., HENRY A. CHRISTIAN, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize.—A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize.—For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue for 1912-13, pages 526-532 and 581-584.

SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. Hitherto such students have been registered as members of the Harvard Medical School; but, with the establishment of the Graduate School of Medicine, October 1, 1912, these special students are enrolled in the membership of that School, if they are not candidates for the degree of Doctor of Medicine. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work, and must be accepted as a student by the Administrative Board of the Graduate School of Medicine.

GRADUATE SCHOOL OF MEDICINE

On October 1, 1912, graduate instruction in medicine was organized as a Department of the Faculty of Medicine of Harvard University, with a separate Dean and Administrative Board.

The object is, by better organization and the development of teaching facilities, — both clinical and laboratory, — to offer graduates in medicine opportunities to continue their studies in as thorough and scientific a manner as in the Medical School proper.

Adequate opportunities for study will be offered for those graduates who wish to review past studies and for those who wish to keep abreast of recent advances in medicine. Other courses will be offered for those who are interested in special subjects, and the excellent opportunities for advanced study and for research in all departments of medical science will be made available for those who are qualified by previous training to undertake such work. Thus graduates in medicine, both of remote and of recent date, whether desiring fundamental reviews or in quest of the attainment of higher standards, are provided for. Graduates of recognized medical schools will be accepted as students.

While all courses are intended primarily for those who hold degrees from recognized medical schools, certain courses in the scientific subjects are adapted to the needs of advanced students and teachers of science. Such persons may be admitted to courses on the approval of the Administrative Board.

Undergraduate students of medicine may be admitted by vote of the Administrative Board to such courses as they are qualified to take. Special consideration for the needs of such students will be given in the plans for summer courses.

The laboratory facilities in the buildings of the Harvard Medical School and at some of the hospitals are available for graduate instruction, as are also abundant clinical opportunities of all kinds in the following institutions : —

Massachusetts General Hospital,	Children's Hospital,
Boston City Hospital,	Infants' Hospital (Rotch Memorial Building),
Peter Bent Brigham Hospital,	Massachusetts Babies' Hospital,
Carney Hospital,	McLean Hospital,
Boston Dispensary,	Boston State Hospital,
Massachusetts Eye and Ear Infirmary,	Danvers State Hospital.
Boston Lying-in Hospital,	
Free Hospital for Women,	

Clinical and laboratory instruction will be conducted in small classes so that students may receive personal attention.

The fees for separate courses vary from \$5 to \$125, according to the nature of the instruction and the duration of the course. An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the office of the Dean of the Graduate School of Medicine, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the Dean of the Graduate School of Medicine, Harvard Medical School, Longwood Avenue, Boston, Mass.

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			<i>October and November.</i> Anatomy. Lecture or Demonstrations. <i>December and January.</i> Histology and Embryology. Lecture.			<i>October to January.</i> Lecture.
10-1			<i>October and November.</i> Anatomy. Dissection. <i>December and January.</i> Histology and Embryology. Laboratory.			<i>October to January.</i> Examinations or Laboratory.
2-3			<i>October and November.</i> Histology and Embryology. Lecture. <i>December and January.</i> Anatomy. Lecture or Demonstrations.			
3-6			<i>October and November.</i> Histology and Embryology. Laboratory. <i>December and January.</i> Anatomy. Dissection.			

FIRST YEAR. — Second Half-Year

PHYSIOLOGY. FEBRUARY

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-1			Laboratory Experiments.			
			<i>March, April, May.</i>			
9-10			Lecture or Demonstration.			
10-12.15			Laboratory Experiments.			
12.15 -1			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.		Laboratory.	

SECOND YEAR. — First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.		JANUARY.
9-12	Pathology. Laboratory.	1 week. Pathology. Laboratory. Daily.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory. T. Smith and E. E. Tyzzer. Daily.	9-10	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				9-12	Tuesday, Thursday, and Saturday.
				10.30-12	Monday, Wednesday, and Friday. Pathology. Laboratory.
12-1	Pathology. Lectures. Daily.			12-1	Pathology. Lectures. Daily.
2-3	Bacteriology. Lectures. Daily except Saturday.		Neuropathology. Daily except Saturday. Lectures and Laboratory. Southard.		Surgical Pathology. Nichols. Surgery. Cushing and assistants.
3-5.30	Bacteriology. Laboratory. Daily except Saturday.				

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	Medicine M. G. H. Edsall	Neurology M. G. H. Taylor	Surgery B. C. H.	Dermatology M. G. H. White	Surgery M. G. H.	Medicine B. C. H. Sears
10-12	Section Work Anatomy, Medicine, Surgery See Section Schedules					
1-2	Clinical Pathology Hewes Bldg. D	Hygiene Rosenau Bldg. E	Clinical Pathology Hewes Bldg. D	Pharmacology Feb., March, April Hunt Bldg. E	Clinical Pathology Hewes Bldg. D	
2-3	Clinical Pathology Hewes Bldg. D	Hygiene Rosenau Bldg. E	Clinical Pathology Hewes Bldg. D	Pharmacology Hunt Bldg. E	Clinical Pathology Hewes Bldg. D	
3-4	Pharmacology Hunt Bldg. E	Medicine Christian Bldg. A, Room 201	Pharmacology Hunt Bldg. E	Obstetrics Green Bldg. A, Room 205	Medicine Christian Bldg. A, Room 201	
4-5	Hygiene Rosenau Bldg. E	Surgery Bldg. A Room 201	Hygiene Rosenau Bldg. E	Surgery. Bldg. A, Room 205	Pharmacology May only Hunt Bldg. E	

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine M. G. H., Edsall and B. C. H., Sears	Pediatrics Children's Hosp. Rotch	Syphilis <i>Sept. 23 to Nov. 19</i> B. D. Post. Neurology <i>Nov. 19 to Dec. 31</i> M. G. H. <i>Jan. Psychopathic</i>
1 or 1.30 -2.30	Luncheon Period					
2.30- 3.30	Obstetrics Green Bldg. A, Room 205	Medicine Christian Bldg. A, Room 201	Gynaecology and Otolaryngology on alternate weeks Bldg. A, Room 205	Obstetrics Green Bldg. A, Room 205	Medicine Christian Bldg. A, Room 201	
3.30- 4.30	Surgery Bldg. A, Room 201	Ophthalmology and Laryngology on alternate weeks Bldg. A, Room 205	Pediatrics Bldg. A, Room 201	Surgery Bldg. A, Room 201	Medicine and Pathology Bldg. D	
4.30- 5.30					Medicine and Pathology Bldg. D	

THIRD YEAR. — Second Half-Year.

UNDERGRADUATE COURSES. — TABULAR VIEW

91

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine B. C. H., Sears and M. G. H., Edsall	Pediatrics Children's Hosp. Rotch	Neurology and Psychiatry <i>Feb., Mar., Apr., May</i> M. G. H.
1 or 1.30 to 2.30	Luncheon Period					
2.30- 3.30	Obstetrics Bldg. A, Room 205	Medicine Bldg. A, Room 205		Medicine Bldg. A, Room 201	Surgery Bldg. A, Room 205	
3.30- 4.30	Surgery Bldg. A, Room 201	Orthopedic Surgery and Syphilis alternate weeks Bldg. A, Room 205	Pediatrics Bldg. A, Room 201	Dermatology and Psychiatry alternate weeks Bldg. A, Room 201	Medicine and Pathology	
4.30- 5.30					Medicine and Pathology	

DEGREES

ON FEBRUARY 26, 1913, DEGREES WERE CONFERRED AS FOLLOWS: —

M.D.

- Isaac Alcuzar, A.B. (*Univ. of Wisconsin*) 1908.
 Richard Dana Bell, A.B. 1908.
 Roger Paul Dawson, A.B. (*Holy Cross Coll.*) 1907.
 Otto Woodson Grisier, A.B. (*Indiana Univ.*) 1910.
 Sterne Morse.
 John Joseph Murphy, A.B. (*Holy Cross Coll.*) 1907.
 Ralph Leavitt Reynolds, A.B. (*Colby Coll.*) 1906.

M.D. *cum Laude*

- George Edwin Eversole, A.B. 1907. Hugo Oliver Peterson.

ON COMMENCEMENT DAY, JUNE 20, 1913, DEGREES WERE CONFERRED AS FOLLOWS: —

Dr.P.H.

- William Dodge Frost, S.B. (*Univ. of Minnesota*) 1893, S.M. (*ibid.*) 1894,
 PH.D. (*Univ. of Wisconsin*) 1903.
Thesis, "The Bacteriological Control of Public Milk Supplies."
 Lewis Wendell Hackett, A.B. 1905, M.D. 1912.
Thesis, "The Application of New Methods to the Study of Bacteria in
 the Air."

M.D.

- William Potter Buffum, Jr., A.B. (*Brown Univ.*) 1909.
 Fergus Almy Butler, A.B. 1908.
 James Charles Carter, A.B. (*De Pauw Univ.*) 1909.
 Allan Rowe Cunningham, A.B. 1909.
 Charles Samuel Curtis, A.B. (*Clark Univ.*) 1909.
 William Francis Dolan, A.B. 1910.
 James Francis Faulkner, A.B. (*Bates Coll.*) 1908.
 John Milton Gilchrist, S.B. (*Cornell Coll.*) 1909.
 Harold Merle Goodwin, A.B. (*Bates Coll.*) 1908.
 Ralph Augustus Goodwin, A.B. (*Bates Coll.*) 1908.
 Jeremiah Augustine Greene, A.B. 1909.
 Irving William Jacobs, A.B. 1909.
 Albert David Kaiser, S.B. (*Univ. of Rochester*) 1909.
 Boyd Merrill Krout, PH.B. (*Ohio Univ.*) 1909.
 Francis Twining Krusen, A.B. (*Ursinus Coll.*) 1909.

- Thomas Eugene Lavelle, A.B. (*Georgetown Univ.*) 1909.
 Charles Owen McCormick, A.B. (*Indiana Univ.*) 1911.
 William Frank MacKnight, A.B. (*Holy Cross Coll.*) 1908.
 Edgar Matthias Medlar, S.B. (*Doane Coll.*) 1908, A.M. (*Univ. of Nebraska*) 1911.
 Edwin Alonzo Meserve.
 Charles Serpa Neves, A.B. 1911 (1910).
 Philip Hale Pierson, A.B. (*Yale Univ.*) 1908.
 Howard Edwin Ruggles, A.B. (*Leland Stanford Jr. Univ.*) 1907.
 Roger Ralph Rupp, S.B. (*Muhlenburg Coll.*) 1909.
 Abdul Malik Saad, A.B. (*Assiout Coll.*) 1908.
 Mitchell Sisson, A.B. 1910.
 Byron Polk Stookey, A.B. (*Univ. of Southern California*) 1908, A.M. (*Harvard Univ.*) 1909.
 Seth Lake Strong, A.B. (*Oberlin Coll.*) 1909.
 John Jay Terrall, S.B. (*Cornell Coll.*) 1907.
 Edward Bancroft Towne, A.B. 1906.
 Abram Lee Van Meter, A.B. (*Univ. of Kansas*) 1909.
 Charles Fletcher Warren, PH.B. (*Brown Univ.*) 1909.
 Wolfert Gerson Webber, A.B. 1909.
 John Alexander Wentworth, A.B. (*Bowdoin Coll.*) 1909.
 Alexander Hamilton Williamson, S.B. (*Univ. of California*) 1911.

M.D. cum Laude

- George Benet.
 Francis Gilman Blake, A.B. (*Dartmouth Coll.*) 1908.
 DeWitt Scoville Clark, Jr., A.B. (*Yale Univ.*) 1909.
 Elliott Carr Cutler, A.B. 1909.
 George Parkman Denny, A.B. 1909.
 John Favill, A.B. (*Yale Univ.*) 1909.
 Francis Browne Grinnell, A.B. 1909.
 Lewis Webb Hill, A.B. 1910 (1909).
 William Gordon Lennox, A.B. (*Colorado Coll.*) 1909.
 Edward DeWitt Leonard, A.B. (*Amherst Coll.*) 1909.
 William Reid Morrison, A.B. 1910.
 Albert Abraham Shapira, S.B. 1910.
 Edward Bernard Sheehan, A.B. (*Boston Coll.*) 1909.
 Carlon TenBroeck, A.B. (*Univ. of Illinois*) 1908.
 Edward Tubbs Wentworth, A.B. 1909.
 Thomas William Wickham, A.B. (*Holy Cross Coll.*) 1909.

ADMISSION EXAMINATION

1913

CHEMISTRY

INORGANIC CHEMISTRY

1. Describe hydrochloric acid, nitric acid, carbonic acid, sodium bicarbonate, calcium chloride.
2. Describe the commercial preparation of sulphuric acid and of ammonia.
3. Explain why some acids are "strong" and others "weak."

ORGANIC CHEMISTRY

1. Give the names and formulae of three alcohols.
2. Describe the properties and reactions of "carbolic acid."
3. Write the constitutional formulae of ether, aniline, chloroform, picric acid.

EXAMINATION PAPERS

(*Annual Examinations, 1913*)

First-Year Studies

ANATOMY — Asst. Professor WARREN

1. Describe the sternum and the sterno clavicular articulation.
2. Describe the extensor muscles of the forearm and hand.
3. Describe the course and distribution of the vagus nerve.
4. Describe the liver, including its position and relations.
5. Describe the position and relations of the rectum.
6. Describe the course relations and branches of the femoral and popliteal arteries.

HISTOLOGY AND EMBRYOLOGY — Asst. Professor LEWIS

1. Section of the umbilical cord of a 17 mm. pig embryo. Make a low power outline drawing of the entire section, and label all the structures shown. From what germ layer is each of the structures derived?
2. What is the tissue? Draw carefully a few of its cells to show their cytological characteristics.
3. Draw a diagram of a complete renal tubule, and label its subdivisions. Which of these parts can be identified in the specimen, and how are they recognized?
4. What are the principal groups of nerve cells seen in the specimen? What are the chief fibre connections of each?
5. What is the organ?

PHYSIOLOGY — Professor CANNON

1. Describe the relations of neurones and the general functions of the autonomic system.
2. Describe conditions affecting the coagulation of blood, and the factors involved in the process.
3. What happens in a blood pressure record when the depressor nerve is stimulated? When the peripheral end of the cut vagus is stimulated? Explain each change.
4. Discuss the correlation of gastric and intestinal digestion through the agency of the pyloric sphincter.

5. Discuss influences, nervous and vascular, affecting the respiratory center. What functions do these influences perform in connection with respiration?

6. State conditions determining the number of corpuscles per cubic millimetre of blood, and the percentage of haemoglobin.

BIOLOGICAL CHEMISTRY — Professor FOLIN

1. Discuss the digestion absorption and oxidation of fats in the animal body.

2. Give the chief characteristics in composition and properties of milk-sugar, glucose and starch.

3. Write graphic formulas of uric acid, allantoin, oleic acid, tyrosin and phenylalanin.

4. Discuss "nitrogen equilibrium."

5. Describe the determination in urine of (a) uric acid, (b) total nitrogen, (c) phosphates.

Second-Year Studies

BACTERIOLOGY — Professor ERNST

1. What is "Neisser's" stain and what is it used for?

2. What is the importance of bacteria in the air?

3. What is meant by "carriers" of infection? Give an example.

4. Describe the bacteriological examination of material from a case of sore throat — suspected of being diphtheria.

PATHOLOGY — Professor COUNCILMAN

1. What is the difference between general death and necrosis? What are the characteristics of necrotic tissue and to what are they due?

2. Discuss haemolysis. What are the conditions which favor the formation of thrombi and how do these act.

3. What are the conditions which favor regeneration after injury? Give an example of regeneration.

4. A woman had died of a recurrent carcinoma of the breast. Describe and discuss the conditions usually found at the autopsy.

5. A child three years of age had died of diphtheria. Describe and discuss the conditions usually found in the lungs in such cases.

6. Give the most common primary localization of tuberculosis and the routes and methods by which the disease extends in the body.

EXAMINATION IN PARASITOLOGY

(Write on separate paper.)

1. Illustrate by one example the transmission of parasites through the agency of (a) contract, (b) food, (c) soil, (d) insects or other invertebrate hosts.

2. In what respects does the life cycle of the malaria parasite differ from that of the coccidium of the rabbit?

EXAMINATION IN NEUROPATHOLOGY

(Write on separate paper.)

1. Sketch the degenerations to be found in cross sections of the cervical and lumbar spinal cord in a case of crush of the thoracic region. Note the alterations of the knee jerk and of the plantar reflex likely to be entailed thereby, listing or sketching the neurones involved in these reflexes before and after the lesion.

PREVENTIVE MEDICINE AND HYGIENE — Professor ROSENAU

1. The population of Portland was 50,145 in 1900, and 58,571 in 1910. In 1912 there were 1023 deaths and 1324 births. During the same year 69 cases of typhoid fever were reported, with 18 deaths. The deaths by ages were as follows:—

Under 1	172	40 to 50	93
1 to 5	38	50 to 60	123
5 to 10	15	60 to 70	168
10 to 20	28	70 to 80	144
20 to 30	71	80 to 90	66
30 to 40	90	90 to 100	15

What was the death rate in 1912?

What was the infant mortality?

What was the typhoid death rate?

What was the mortality from typhoid fever?

2. What measure would you adopt to check an outbreak of diphtheria in an orphan asylum?

3. If you were called as a sanitary expert in the case of an epidemic of typhoid fever in a town using raw river water, what recommendations would you make to obtain immediate relief?

4. Briefly define: "Temporary carrier," "fixed virus," "Mills-Reincke phenomenon," "intermediate host," "pasteurization," "variola inoculata," "certified milk," "return cases."

Third-Year Studies**THERAPEUTICS — Professor PFAFF**

1. Action and uses of mercury.
2. Action and uses of morphine.
3. Action and uses of digitalis.
4. Name the different drugs used in the treatment of tapeworms, and state how the patient should be prepared for the treatment.
5. Give the treatment for a case of chronic diarrhoea.
6. Having to treat a case of obesity, what measures would you advise to reduce body weight?
7. Treatment of acute and chronic diseases of the kidneys.
8. Write prescriptions for the following drugs, avoiding abbreviations and giving full directions to the patient:—

(a) Ergot.	(c) Mercury.	(f) Digitalis.
(b) Carbolic acid.	(d) Phenacitine.	(g) Strychnine.

THEORY AND PRACTICE OF PHYSIC — Professor CHRISTIAN

1. Describe the symptoms of chronic lead poisoning. How does a case of chronic lead poisoning differ from one of chronic arsenic poisoning?
2. Discuss lobar pneumonia from the view-point of a biological problem.
3. Describe the dietetic and therapeutic management of a case of chronic interstitial nephritis of moderate severity.
4. A palpable mass is found in the left half of the abdomen of a male patient, — discuss the possibilities as to diagnosis, describing such features as would lead you to make these various diagnoses.
5. Describe the results of hyperactivity and hypoactivity of the adrenal glands in relation to pathological conditions in man.

CLINICAL MEDICINE — Professor EDSALL

Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting, but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive though correct diagnosis. Write out all prescriptions in full.

CASE 1

In December, 1912, an Italian boy of fifteen began to have severe diarrhoea with blood and pus in the stools which were passed every hour for three days. Fever 101° – 103° accompanied this diarrhoea. On the fourth day diarrhoea and fever ceased and a slight soreness in the knees and ankles was noticed. On account of this he stayed ten days in bed though free from pain or fever. After being up and about for three

weeks he began to notice dyspnoea on exertion and pallor became marked. In other respects he feels perfectly well and January 20th consults a physician on account of extreme yellow pallor. Family history, previous history, and habits good.

Physical examination shows poor nutrition and striking yellowish pallor. The pulse 120, regular. Systolic blood pressure 100. Cardiac impulse wavy and diffuse. Cardiac dulness extends one inch outside the left nipple in the fifth interspace and one-half inch beyond the right sternal margin. No thrill. At the apex a short, high-pitched systolic murmur and a low-pitched rumble at the end of diastole. Neither murmur is widely transmitted. Over the lower end of the sternum there is an early diastolic murmur. All the cardiac sounds are heard as in health. The pulse wave rises and falls very quickly. Lungs, abdomen, and extremities normal. Urine normal. No fever. Blood: red cells, 3,700,000, white cells, 15,800. Haemoglobin, 45 per cent. The stained smear shows marked achromia, moderate poikilocytosis and an excess of polynuclear leucocytes.

Diagnosis? Prognosis? Treatment?

CASE 2

Miss U., aged forty-eight, was always well until eight years ago when she fell through a trap door into the cellar below. She did not strike her head in falling and was not injured, but within a few hours developed a severe headache which lasted three months with occasional respites of a few hours at a time. From the third to the sixth month after this fall the headache came only about once a week and lasted six to twelve hours.

Six months after the fall she had "a fit" with coma, generalized clonic convulsions, and biting of the tongue. A year later she had a similar attack, and since then the convulsions have become more and more frequent, so that at present they occur about once a week. The sphincters are never relaxed during an attack.

Appetite, bowels, sleep and weight are normal, and between fits she feels well though somewhat weak. Family history and habits good. Menopause eight years ago.

Physical examination shows a systolic blood pressure of 195 mm. Hg. The cardiac outlines cannot be determined owing to extreme obesity. Auscultation reveals nothing abnormal in the heart or lungs. Abdomen and extremities normal. Head negative except for scars on the tongue. Night urine one and a half pints. Day urine one pint. Specific gravity 1010. Albumen slight trace. No casts. Blood normal.

Diagnosis? Prognosis? Treatment?

CASE 3

A florist salesman of forty-six, born in England, living in Massachusetts, gives the following history:—

F. H. Not important. His wife has had one miscarriage; two children, living and well.

P. H. Scarlet fever in childhood, typhoid at twenty-two years. Denies venereal disease. Habits moderate.

P. I. Patient was suddenly seized, while at work, with a sharp pain in left lower quadrant, speedily becoming knife-like and develop-

ing into a series of cramps. There were frequent loose stools. The attack lasted an hour and a quarter; a slighter attack followed shortly after; the stools were watery and copious. There was no fever. The white count was low. There was some tenderness and spasm of abdomen, on the left. The case was seen by a surgeon but was not considered surgical. Under hot fomentations and one-quarter grain of morphine patient was relieved. There was no nausea or vomiting. When seen the next day the examination was as follows:—

P. E. T. 98.4 — P. 88 — R. 22 — Hb. 80 per cent — White count 12,000. Blood smear, negative. Well developed, obese. Pupils slightly irregular, left greater than right, both react to distance, slightly to light; no lead line. The lungs showed nothing important. There was slight enlargement of the heart; a distinct systolic and diastolic murmur could be heard in second right interspace; there was slight increase in the sub-sternal dulness. Blood pressure: systolic 150, diastolic 65. The abdomen was not remarkable. Rectal examination negative. Extremities negative. No oedema. Knee jerks present, equal but rather sluggish. Urine — normal in amount — normal gravity — Acid — no albumin or sugar — no urobilinogen — no bile or diacetic acid — very slight trace of acetone. Sediment showed round cells. Stool — yellow, soft, alkaline — Guaiac negative. Wassermann moderately positive on one examination, strongly positive on second. Lumbar puncture 8 c.c. — clear fluid — not under pressure; cell count 85, of small mononuclear type. X-ray of chest shows cardiac enlargement with increase of sub-sternal shadow, suggesting dilatation of the arch. During his stay in the hospital his temperature ranged from 97.4 to 98.4 — pulse 60 to 80 — respiration 20 to 22. The blood pressure varied from 140–160 systolic — 55–65 diastolic.

Diagnosis? Prognosis? Treatment?

PEDIATRICS — Professor ROTCH

More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.

1. William M. was seen when eight months old. There was one other child well, none had died, and there had been no miscarriages. There had been no tuberculosis in the family and no known exposure to tuberculosis. He was born at full term after a normal labor, was normal at birth and weighed 8 lbs. He was given a very strong modified milk at once. He gained rapidly and did well on this for a month. He then began to spit up a good deal and to have loose, undigested movements. His weight gradually went up to 12 lbs. He then began to lose and was given Mellin's Food prepared with milk. While taking this he vomited a great deal and had a severe diarrhoea. After a week he was put on modified milk. He continued to vomit and to have bad movements so that when five months old he weighed only 10 lbs. He was then put on Eskay's Food and milk, the formula figuring about 3% of fat, 5.50% of sugar, 2.25% of proteids and 2% of starch. He took five or six feedings of 6 ounces. He vomited much less and had no colic. His bowels, however, became constipated, enemata being needed constantly. The movements were, however, although hard,

well digested. The weight then went up to 12 lbs., when he was six months old and remained there afterward. He seemed well and happy but had lost a good deal of color.

Physical Examination. — He was small and thin. There was marked pallor of the skin and mucous membranes. The skin was in good condition. He was bright and happy. The anterior fontanelle was three cm. in diameter and somewhat depressed. The hair was worn off the back of the head. There were two teeth. The tongue was clean. The mouth and gums were healthy and the throat normal. There was no rosary. The heart and lungs were normal. The abdomen was much enlarged but not tense. It was everywhere tympanitic and there was no evidences of fluid. Several masses, one or two inches in length, and one inch or more in width, were felt scattered throughout the abdomen. The masses were movable and not tender. The upper border of the liver flatness was in the 5th space; the lower border was not palpable. The spleen was not palpable. The genitals were normal. The extremities showed nothing abnormal. There was no spasm or paralysis. The knee jerks were equal and normal. Kernig's sign was absent. There was very slight enlargement of the peripheral lymph nodes. The color of the urine was normal. The temperature was 99°F.

(Discuss the above case, giving the differential diagnosis, prognosis and treatment.)

2. (a) At what time should the anterior fontanelle close normally ?
- (b) In what order do the temporary teeth appear normally ?
- (c) At what age should an infant hold up its head ?

3. A baby, three months old, weighs eleven pounds. It is taking 8 feedings of 3 ounces of a mixture of equal parts of whole milk and barley water, containing 1.50% of starch, to which 2 rounded table-spoonfuls of milk sugar is added. The mixture is not pasteurized. It is desirable to have this food prepared at a laboratory.

Write the prescription for this food. Does it provide sufficient calories and proteids to cover the caloric and proteid needs of the baby ?

4. What factors govern the dosage of antitoxin in diphtheria and how would you tell the amount needed in a given case ?

5. State what you understand by infectious diarrhoea and give some of the causes. Give the differential diagnosis from other causes of diarrhoea and the general treatment for the infectious class.

6. State the causes which may produce convulsions in infancy.

SURGERY — Professor CUSHING

1. Describe the treatment of congenital club-foot in a child of three previously untreated.

2. Discuss the indications for the drainage of wounds: Describe the methods and the management of the same.

3. (a) A number of the tendons of the wrist have been cut and sutured: How soon should motion be begun and why ?

(b) The Tendo Achilles has been cut for club-foot: How soon should motion be begun and why?

(c) An abdominal wound has been made 6" long in the median line: How soon should the patient sit up? How soon should he be allowed to walk? How soon should he go without an abdominal support?

4. Describe the progress of a severe case of intra-abdominal hemorrhage, due to slipping of a ligature from the uterine artery, after hysterectomy. Treatment.

5. What would be your treatment of a bad felon of the thumb of three days' duration? Prognosis.

6. Symptoms and treatment of a case of acute tetanus developing five days after a blank-cartridge wound of the palm of the hand. Prognosis.

7. What is the lesion in a Pott's Fracture? What are the symptoms and treatment?

8. Etiology, symptoms, and treatment of acute gangrenous cholecystitis.

9. Symptoms, treatment, and prognosis of fracture of the base of the skull.

10. Of what fallacies should the surgeon be aware when using the X-Ray for the diagnosis of fracture cases?

CLINICAL SURGERY—Professor CUSHING

1. A man of forty-nine had typhoid when twenty; otherwise perfectly well until two years ago. He then noticed occasional discharges of mucus from rectum and some staining of nightgown in morning; discharge was glary but not bloody. He consulted a physician who told him, without examination, that he had colitis, and advised irrigations. For a time mucus diminished, but about a year ago increased and was slightly blood stained. There was no pain in rectum; no pain on defecation; stools, with the exception of a little bloody mucus, normal. He consulted another physician, who again, without examination, told him he had hemorrhoids, and advised astringent suppositories. Six months ago, noticed increasing constipation with some colicky pains and occasional attacks of diarrhoea with blood. During last three months, lost 15 pounds in weight and feels generally tired; complains of occasional pains down back of right leg. Rectal examination reveals on right anterior wall, a cauliflower mass the size of a hen's egg, projecting far into lumen of rectum with an indurated base. A portion was removed with free bleeding and reported by a competent pathologist to be a papillary adenoma. Patient's temperature normal; pulse 72 and of good quality; hemoglobin 80 per cent.

(a) What further examinations should be made?

(b) What is the probable diagnosis?

(c) What treatment would you advise and why?

(d) What is the prognosis and course of the disease without operation?

(e) What palliative treatment would you advise if colostomy were refused?

2. Man of fifty-nine; wife and nine children well; family history negative. No illnesses except occasional attacks of rheumatism. Moderate use of tobacco; drinks sparingly; denies venereal disease. Best weight twenty years ago 175 pounds; three years ago 160 pounds. present weight 142 pounds; had lost a good deal in past six months. For many years patient has had some trouble with stomach; heart-burn; sour eructation of gas; mild distress after food, not serious and not constant. Six years ago, gnawing in epigastrium; feeling as if food pressed against diaphragm; vomited occasionally. For past six months, burning sensation; more constant and more severe; general condition running down, but has worked up to five days ago. For two weeks has vomited more frequently; often three or four times a day. Vomitus is intensely acrid, but contains no blood and no evidence of food eaten the day before. Burning pain relieved slightly by food for half an hour, then gradually returns and is worse two to three hours after meals; soda gives some relief. No jaundice; no melena. Has made no change in diet, and appetite is still good. General physical examination negative; urine normal; leucocytes 8600; hemoglobin 85 per cent. On inflation, lower border of stomach 3 cm. below umbilicus; no tumor can be felt; capacity 1800 c.c. Fasting contents: 25 c.c.; yellowish; clear with slight sediment; cells and mucus; few starch granules. Test meal: dark brownish; 50 c.c., with one third food residual; reaction acid; free HCl 0.056; total acidity 0.127; guaiac positive; two days later guaiac negative. X-rays negative; stomach outlines normal; some evidence of cecal stasis.

- (a) What is the probable diagnosis ?
 - (b) Would you advise exploratory laparotomy ?
 - (c) Describe the various lesions which may be found at operation, and what operation you would perform in consequence.
3. Under what circumstances should a partial gastrectomy be performed.

OBSTETRICS — Professor GREEN

1. What changes take place in the musculature of the uterus from the beginning of pregnancy to the termination of the puerperium ?
2. Mention the symptoms and signs which would warrant a presumptive diagnosis of pregnancy. What signs are essential to a positive diagnosis ? What variant symptoms would suggest the possibility of an ectopic pregnancy, and call for careful physical examination to confirm or disprove this suspicion ?
3. What anomalies of, or accidents to, the umbilical cord may prove a cause of dystocia or of danger to foetal life ?
4. What are the characteristics of the pelvis aequalibiter justo minor ? In the event of spontaneous delivery through a pelvis of this type, in what respects does the mechanism differ from that observed in normal pelves ?
5. What is the normal mechanism of spontaneous delivery in presentations of the frank breech ? In the event of inefficiency of the expulsive forces, what operative assistance is indicated according to the stage in the delivery at which the normal forces fail ?

6. A young primigravida under careful supervision is found to have a pelvis with these measures: intercrystal, 26 cm.; interspinous, 23 cm.; external conjugate, 17.5 cm.; inter tubera ischii, 8.5 cm.; the internal measurements were not made. From successive observations it was thought there was a fair chance that the presenting head would engage and descend, if the pains were normally effective. Through some misunderstanding the case was not seen after the 36th week until fullterm labor had been in progress for from 12 to 15 hours: it was then found that while the head, in occipito left anterior position, was firmly held over the superior strait during uterine contractions, it was not well engaged. The woman and foetus were both in good condition, and no vaginal examination had been made since labor began. The woman was obviously still in the first stage, and the membranes had not ruptured. The baby was estimated to weigh eight pounds. Take up the case at this point, and outline the course you would pursue. Give your reasons for your line of action.

7. A young woman enters hospital in active second-stage labor, and the presenting head is already bulging the perineum with each successive pain. It is obvious that she will soon deliver herself. It is discovered in the hurried preparation of the genitalia that an abscess of one of Bartholini's glands has recently ruptured and is still discharging. There is no time for a bacteriological examination; but what is the probable aetiology of the abscess, what are the dangers to mother and foetus, and what can be done in the way of prophylaxis?

8. A consultant is asked to see a quadrigravida in her 36th week on account of increasing dyspnoea and cyanosis: she had been as quiet as possible for several weeks in her tenement home in a third story, but without satisfactory improvement. She is found to have double mitral disease, with systolic and prae-systolic murmur, but without marked cardiac enlargement. There is no pulmonary or other oedema, and the general health is very good. Transfer to hospital is advised and accepted: if in charge of the case in hospital, how would you proceed with it?

9. A multigravida, who works daily in a laundry, when in her 37th week had a considerable uterine haemorrhage. A competent obstetrician firmly packed the vagina and sent her to hospital, where the pack was removed: digital examination through a patulous cervix found the edge of the placenta within reach. No bleeding was excited by the examination. The foetal heart sounds were satisfactory. How would you proceed with the care of this case?

10. What are the characteristic differences between septic and putrid puerperal endometritis, and on what general principles should each type of infection be treated?

GYNAECOLOGY — Professor GREEN

1. In the face of marked pelvic congestion, whether consequent on infection or on circulatory disturbances, what local measures are usually effective in relieving symptoms and in preparing the patient for subsequent treatment? Describe in some detail the measures you would employ.

2. In what periods of woman's life history are carcinoma, myoma, and sarcoma most frequently observed respectively? In view of the frequency and fatality of uterine carcinoma, what means do you think could be adopted by which this affection could be brought to early diagnosis with a view to successful surgical treatment?

3. Aside from the infections of impure sexual relation, what is the most frequent source of pelvic infection? In what ways may bacterial invasion reach the Fallopian tube and peritoneum other than by way of the vagina? What infections are most fatal to life, and what are more likely to cause local destructive processes without great menace to life?

4. Make a differential diagnosis between ovarian cystoma extending a hand's breadth above the umbilicus, and other abdominal tumors. In the event of axial rotation of an ovarian cyst, what changes are likely to occur in the tumor, and what are the symptoms and physical findings which point to the occurrence of this phenomenon?

DERMATOLOGY — Professor WHITE

1. Treatment of acne vulgaris.
2. Differential diagnosis of pityriasis rosea and psoriasis.
3. Sycosis vulgaris.
4. Treatment of fresh ivy poisoning.
5. Differential diagnosis of lupus erythematosus and acne rosacea.

SYPHILIS — Professor POST

1. What are the general characteristics of primary syphilis without regard to its situation?
2. What is necessary to establish the truth of a syphilitic re-infection?
3. Mention the various tests and methods of precision which may be used in the diagnosis of syphilis?
4. What is the value of a negative Wassermann?
5. You suggest the use of Salvarsan to a patient. He tells you that he has been warned against the drug and asks you to tell him the exact truth about it. What will you say to him?

NEUROLOGY — Assistant Professor TAYLOR

1. Signs and symptoms of intracranial pressure. Under what conditions does it occur?
2. Significance of exaggerated knee-jerk. (a) Without ankle clonus; (b) with ankle clonus.
3. What is the result of a destructive lesion of (a) the ventral horns of the cord; (b) the dorsal tracts; (c) a peripheral nerve; (d) the posterior portion of the capsule; (e) the mid precentral region of the cerebral cortex?
4. Brief statement of recent views of hysteria.

PSYCHIATRY — Dr. ADLER

1. Describe the symptoms of delirium tremens.
2. What do the following terms signify ?
 - (a) Euphoria.
 - (b) Expansive delusions.
 - (c) Negativism.
 - (d) Echopraxia.
3. Discuss briefly the prognosis in manic depressive insanity.
4. Describe the functions of the physician in committing a patient.
5. Discuss briefly the following cases:—
Male, thirty-six years of age, single. Occupation, attorney.

HISTORY

Father 'died at fifty-six of Bright's Disease. Mother, sixty-three' living and well. Maternal grandparents both died of consumption' One maternal uncle died at sixty of "softening of the brain" following several shocks. Two brothers, both well. One sister well. With the exception of uncle, no history of insanity in the family. Patient had usual diseases of childhood. Nine or ten years ago had pneumonia. Was in the hospital for seven weeks. Fifteen years ago had chancre, for which he was treated. Is a periodic drinker; admits occasional alcoholic excesses. "Smokes cigarettes inveterately all day long."

About three months ago began to suffer from insomnia, which has gradually become worse. His appetite is diminished. Bowels constipated. Lost fifteen pounds in weight. His business has been very poor, and he has become involved in financial difficulties. He is very much worried about his affairs and is getting despondent. Complains that his head is not clear.

About six weeks ago he took sixty grains of trional with suicidal intent. A few days later he took one corrosive sublimate tablet, but vomited it up again. For the past three months he has taken one or two ten-grain tablets of trional every night to induce sleep. They have helped him but little. He has been living in a furnished room, but his money has given out, so was sent to the hospital by a physician.

PHYSICAL EXAMINATION

Head well formed. Teeth are decayed. Tongue protrudes in median line. Lungs: slight dulness and crepitant rales in both apices. Heart: soft blowing systolic murmur at apex. Second pulmonic slightly accentuated. Abdominal contents: nothing of note. Slight superficial inguinal adenitis. Epitrochlear gland palpable. Coarse tremor of the extended fingers. Pupils equal and contract on distant vision. Slight sluggish contraction in response to light. Slight tremor of tongue. Knee-jerks lively, both sides. Wrist and elbow-jerks lively, both sides. No ankle clonus, Babinski or Oppenheim. Stands in Rhomberg's position. No disturbance of gait. No paralyses.

MENTAL EXAMINATION

Speech slow. Some retardation. Articulation and enunciation fair. Orientation perfect. Memory good. Answers the test questions correctly. Shows no intelligence defect. No evidence of hallucinations or delusions. Emotionally depressed and unhappy. Flow of thought is slow. General conduct orderly. Patient seems confused. Says: "I am all in. My mind is all gone."

Serum gives a positive Wassermann reaction. Examination of the spinal fluid shows a positive Wassermann reaction. Globulin increased in amount. There are twenty-two cells to the cubic millimeter.

Urine examination. Amber, acid, sp. gr. 1025, albumin none, sugar none.

Female aged twenty-one, single. Occupation, waitress. Was brought to the hospital by her mother because she had been so excited at home that it was impossible for the family to care for her.

HISTORY

Father and mother living and well. Grandparents (maternal) alive. Paternal grandparents died over sixty years of age. Cause unknown. No history of tuberculosis, syphilis, or nervous or mental disease in the family. Patient is one of seven. Three sisters and three brothers, all living and well. Patient had measles and whooping-cough during early childhood. Pneumonia two years ago. In a hospital five weeks. Otherwise no serious illness. Catamenia began at fifteen. Irregular, painful. Patient had a good school education, graduated from the high school at eighteen years of age.

About two weeks before admission, while waitress in a summer hotel, began to forget her orders, and was very nervous. On being spoken to by the head waitress, became very much confused and wept. Lost her temper in the dining-room before the guests. Was sent to her room, where she went to bed and cried all night. Is said to have had a convulsion shortly after the incident in the dining-room, and has had two or three convulsions since then. Lay in bed for two or three days, moaning occasionally and appearing to be very much depressed mentally; refused to answer questions. Was tidy. Mother took patient home with her, but the conditions grew worse. The patient became so restless at night that the family were afraid the neighbors would complain. On admission to the hospital had to be carried to the ward. Was mute and passively resistant.

PHYSICAL EXAMINATION.

Well developed, fairly well nourished young woman. Skin hot, soft, and moist. Pupils are widely dilated, equal, react to light. Teeth poor. No glandular enlargement. Examination of thoracic and abdominal contents shows nothing of note. All reflexes active. Pulse is ninety to the minute, small in volume, low tension.

August 3. Two days after admission, temperature is 101.2, pulse 128, respiration 24. Blood examination for leucocytes, 17,000. 77 per cent polymorphonuclears; 22 per cent lymphocytes; 2 per cent eosinophiles. Slight enlargement of upper cervical lymph glands. Tonsils and pharynx appear red. No membrane or exudate. Culture from throat shows staphylococci. No K.-L. Wassermann, serum negative.

Examination of the spinal fluid, Wassermann negative. Globulin not increased. No cells. No tubercle bacilli.

August 7. Four days later, temperature 98.4; pulse 72; respiration 20. Patient has been artificially fed ever since admission. Does not talk, is resistive, restless, tossing about the bed, throwing off bed clothes. Sleeps well at night. Refuses to eat.

October 10. Two months later. Since the last note patient has gradually become less restless. Now sits up in chair most of the day. Keeps her clothes on. Is mute and resistive.

November 14. Five weeks later. Patient was discharged today. Left the hospital apparently restored to health. Bright and cheerful. Thanked the hospital authorities for their kindness and care of her. During the past five weeks patient has gained twenty-five pounds in weight, and has gradually regained control of her movements. There is a marked memory defect for most of the time spent at the hospital. Patient's memory is good for events of the past four weeks.

OPHTHALMOLOGY — Professor STANDISH

1. Give the Helmholtz theory of accommodation.
2. To what dangers does a perforating injury of the eye-ball expose a patient.
3. The clinical history, methods of diagnosis, and treatment in Cataract.
4. What is the Characteristic Field of Vision in Glaucoma?
5. What ocular symptom may appear in

Diabetes?	Tabes?
Diphtheria?	Nephritis?

OTOLOGY — Professor BLAKE

1. Describe the bony labyrinth and give its position in the petrous portion of the temporal bone.
2. What changes in position of the sound transmitting apparatus of the middle ear are effected by contraction of the Tensor Tympani muscle?
3. In what way do adenoids affect the function of the middle ear?
4. Describe a case of acute congestion of the middle ear in a child and indicate the treatment.
5. What is the difference between ligamentous and bony fixation of the stapes in effect?
6. Under what conditions is paracentesis of the drum-head required?

LARYNGOLOGY — Professor COOLIDGE

1. Describe the blood supply of the nasal septum.
2. The more common causes of nasal obstruction.
3. The histological changes occurring in acute tonsillitis.
4. Describe peritonsillar abscess.
5. Describe the glottis.

THE MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

Grinnell, Francis Browne, A.B. 1909, M.D. 1913,	Dover
Schuster, Bruno Lyonel, M.D. (<i>Univ. of Michigan</i>)	
1897, B.S. (<i>Jefferson Medical Coll.</i>) 1898,	Milwaukee, Wis.

FOURTH CLASS

Albee, Kenneth Field, PH.B. (<i>Brown Univ.</i>) 1910,	Wollaston
Alton, Benjamin Harrison, S.B. (<i>So. Dakota State Coll.</i>) 1908, S.M. (<i>ibid.</i>) 1910,	Brookings, So. Dak.
Andrews, Sumner Cheever, A.B. 1910,	Gloucester
Aub, Joseph Charles, A.B. 1911,	Cincinnati, O.
Bachman, George Warren, A.B. 1908,	Wilkes-Barre, Pa.
Beard, Archibald Hildreth, A.B. (<i>Kansas Univ.</i>) 1910,	La Junta, Colo.
Belding, David Lawrence, A.B. (<i>Williams Coll.</i>)	
1905, M.D. (<i>Boston Univ. Sch. of Med.</i>) 1913,	Wellfleet
Bill, José Penteado, A.B. (<i>Dickinson Coll.</i>) 1907,	Harrisburg, Pa.
Binger, Carl Alfred Lanning, A.B. 1910,	New York, N. Y.
Brett, Afley Leonel, A.B. (<i>Brown Univ.</i>) 1910,	So. Braintree
Brown, Herbert Rutherford, S.B. (<i>Univ. of Rochester</i>) 1901,	Jamaica Plain
Burket, Ivan Roy, A.B. (<i>Univ. of Kansas</i>) 1910,	
A.M. (<i>ibid.</i>) 1911,	Wetmore, Kan.
Burpee, Benjamin Prescott, A.B. (<i>Dartmouth Coll.</i>)	
1909,	Manchester, N. H.
Caro, Heiman, A.B. 1911 (1910),	Chelsea
Cheever, Austin Walter, A.B. 1910,	Mattapan
Cobb, Stanley, A.B. 1910,	Milton
Cohen, Joseph Powitzer, A.B. 1909,	Newburgh, N. Y.
Cook, Ward Hance, A.B. (<i>Univ. of Kansas</i>) 1909,	
A.M. (<i>ibid.</i>) 1910,	Kansas City, Mo.
Crabtree, Ernest Granville, PH.B. (<i>Univ. of Wooster</i>)	
1906,	Zanesville, O.
Cragin, Horace Stuart, S.B. (<i>Amherst Coll.</i>) 1910,	Brooklyn, N. Y.
Crawford, Clay, A.B. (<i>Yale Univ.</i>) 1909,	Ft. Thomas, Ky.

Donovan, Jeremiah John, A.B. (<i>Boston Coll.</i>) 1900,	Randolph
Durrett, James Johnson, S.B. (<i>Univ. of Alabama</i>)	
1908,	Northport, Ala.
Fay, William James, A.B. (<i>Clark Univ.</i>) 1910,	Worcester
Fernández, Miguel Joaquin, A.B. (<i>Colegio Pinillos, Colombia, S. A.</i>) 1907,	Mompox, Colombia, S.A.
Fiske, Cyrus Hartwell, A.B. (<i>Univ. of Minnesota</i>)	
1910,	St. Paul, Minn.
Fornell, Carl Hernfrid, A.B. 1910,	Quincy
Foster, Thomas Albert, A.B. (<i>Dartmouth Coll.</i>)	
1910,	Portland, Me.
Gillette, George Henry, A.B. (<i>Cornell Coll.</i>) 1910,	Bayport, N. Y.
Gosline, Harold Inman, A.B. 1909,	Roxbury
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Green, Hyman, A.B. 1911,	Boston
Hanchett, Alsoberry Kaumu, A.B. 1911 (1910),	Waimea, Hawaii
Hill, Frederick Thayer, S.B. (<i>Colby Coll.</i>) 1910,	Waterville, Me.
Hyde, Harold Valmore, S.B. (<i>Dartmouth Coll.</i>)	
1910,	Lynn
Johnson, Harold Bartlett, A.B. 1911,	Cattaraugus, N. Y.
Leavitt, Peirce Henry, S.B. 1910,	Cambridge
Lehman, Edwin Partridge, A.B. (<i>Williams Coll.</i>)	
1910,	Redlands, Cal.
Levine, Samuel Albert, A.B. 1911,	Roxbury
Lieb, Clarence William, A.B. (<i>Colorado Coll.</i>) 1908,	
A.M. (<i>ibid.</i>) 1909,	Manzanola, Colo.
Long, James Harmount, A.B. (<i>Ohio Wesleyan Univ.</i>) 1904, A.M. (<i>ibid.</i>) 1907,	Cambridge
Louis, Lawrence Joseph, Jr., A.B. (<i>Holy Cross Coll.</i>) 1910,	Jamaica Plain
Lunt, Lawrence Kirby, A.B. 1909,	Colorado Springs, Colo.
Lurier, Israel, A.B. (<i>Clark Univ.</i>) 1910,	Worcester
McMahon, William Edward Roche, A.B. (<i>Holy Cross Coll.</i>) 1910,	Worcester
Marvin, Frank William, A.B. 1910,	Cambridge
Millet, John Alfred Parsons, A.B. 1910,	Boston
Moor, Henry Britt, S.B. (<i>Colby Coll.</i>) 1910,	Waterville, Me.
Morrison, Wayland Augustus, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1910,	Los Angeles, Cal.
Morrissey, John Henry, Jr., A.B. (<i>Brown Univ.</i>)	
1910,	Bristol, R. I.
Munro, Donald, A.B. 1911,	Milton
New, Way Sung, A.B. (<i>St. John's Coll.</i>) 1910,	Shanghai, China

Ohler, William Richard, s.B. 1910,	Bethel, Conn.
Packard, George Byron, Jr., A.B. (<i>Univ. of Colorado</i>) 1910,	Denver, Colo.
Richardson, Henry Barber, A.B. 1910,	Boston
Rochford, Richard Augustine, A.B. (<i>Holy Cross Coll.</i>) 1910,	Newton Lower Falls
Root, Raymond Richmond, s.B. (<i>Dartmouth Coll.</i>) 1905,	Georgetown
Schofield, Roger William, A.B. (<i>Clark Univ.</i>) 1910,	Worcester
Shohl, Alfred Theodore, A.B. 1910,	Cincinnati, O.
Solomon, Harry Caesar, s.B. (<i>Univ. of California</i>) 1910,	Los Angeles, Cal.
Stevens, Harold Wentworth, A.B. (<i>Bates Coll.</i>) 1906,	Saco, Me.
Stoddard, James Leavitt, A.B. 1910,	Northampton
Tyler, Fred Sylvester, A.B. (<i>Yale Univ.</i>) 1895,	Roxbury
Vernlund, Carl Frithiof, s.B. (<i>So. Dakota State Coll.</i>) 1909,	Jungskola, Sweden
Winchester, Harold Eugene, s.B. (<i>Dartmouth Coll.</i>) 1910,	Bismarck, No. Dak.
Withington, Paul, A.B. 1909,	Cambridge
Wright, Wade Stanley, s.B. (<i>Univ. of Pittsburgh</i>) 1910,	Pittsburgh, Pa.

THIRD CLASS

Allen, Edward Bartlett, A.M. (<i>Brown Univ.</i>) 1911,	Centreville, R. I.
Amiral, Hiram Hygazon, A.B. (<i>Univ. of Rochester</i>) 1911,	Alameda, Cal.
Appleton, Paul, PH.B. (<i>Brown Univ.</i>) 1911,	Providence, R. I.
Babington, Vernon Edgar, A.B. (<i>Brown Univ.</i>) 1911,	Cranston, R. I.
Bloomer, Earl, A.B. (<i>Univ. of Missouri</i>) 1913,	St. Joseph, Mo.
Bock, Arlie Vernon, A.B. (<i>Upper Iowa Univ.</i>) 1910,	Dubuque, Ia.
Boller, Stanley, A.B. (<i>Univ. of Southern California</i>) 1911,	Los Angeles, Cal.
Bowes, Frank Arthur, A.B. (<i>Holy Cross Coll.</i>) 1910,	Waterbury, Conn.
Bridges, Edwin Stanley, A.B. (<i>Univ. of New Brunswick</i>) 1908,	St. John, N. B.
Brown, George Percy, A.B. (<i>Yale Univ.</i>) 1911,	Barre
Brown, Harry Henderson, Jr., A.B. (<i>Univ. of Texas</i>) 1910,	Yoakum, Texas

- Bumpus, Hermon Carey, Jr., PH.B. (*Brown Univ.*)
 1912, Madison, Wis.
 Bunker, Henry Alden, Jr., A.B. 1910, Brooklyn, N.Y.
 Caldarone, Alfred Anthony, A.B. (*Holy Cross Coll.*)
 1911, Providence, R. I.
 Christman, Robert Albert, PH.B. (*Lafayette Coll.*)
 1911, Kresgeville, Pa.
 Clason, Freeman Pell, A.B. (*Bates Coll.*) 1911, Gardiner, Me.
 Cleaves, Edwin Nelson, A.B. 1911, Medford
 Cline, Samuel, S.B. 1911, Roxbury
 Cook, Edgar Charles, A.B. (*Lake Forest Coll.*) 1911, Mendota, Ill.
 Cummings, Edward Joseph, A.B. (*Boston Coll.*)
 1911, So. Boston
 Curtin, John Francis, A.B. (*Holy Cross Coll.*) 1911, Lawrence
 Devine, Bernard Francis, A.B. 1911, So. Boston
 Diehl, Oliver Roland, A.B. 1912, Ambler, Pa.
 Dole, Kenneth Llewellyn, A.B. (*Leland Stanford Jr.*
Univ.) 1912, Jamaica Plain
 Donnell, Clyde Henry, A.B. (*Howard Univ.*) 1911, Greensboro, N.C.
 Downing, John Godwin, A.B. (*Boston Coll.*) 1911, So. Boston
 Durkin, Harry Anthony, A.B. (*Holy Cross Coll.*)
 1911, Peoria, Ill.
 Dwinell, George Francis, A.B. (*Dartmouth Coll.*)
 1911, Manchester, N. H.
 Edwards, Henry William, Jr., S.B. (*Univ. of Ro-*
chester) 1911, Brockport, N. Y.
 Edwards, Sumner, A.B. (*Bowdoin Coll.*) 1910, Bethel, Me.
 Edwards, Walter Davis, A.B. (*Univ. of Rochester*)
 1911, Brockport, N. Y.
 Fein, Harry, A.B. 1911, Boston
 Flagg, Charles Monroe, S.B. 1905, Cambridge
 G  n  reux, Edmond Alfred, A.B. (*Holy Cross Coll.*)
 1911, Webster
 Gibson, Arthur Collis, A.B. (*Bowdoin Coll.*) 1911, Jamaica Plain
 Gillespie, Norman Wilkinson, S.B. (*Tufts Coll.*)
 1911, Dorchester
 Gillon, Charles Joseph Carroll, PH.B. (*Holy Cross*
Coll.) 1911, Taunton
 Gilpatrick, Leon Southard, A.B. (*Colby Coll.*) 1909, Hartland, Me.
 Grabfield, Gustave Philip, A.B. (*Williams Coll.*)
 1912, Cincinnati, O.
 Hankey, Daniel Clyde, A.B. (*Westminster Coll.*)
 1909, Ford City, Pa.

- H'Doubler, Francis Todd, A.B. (*Univ. of Wisconsin*)
 1907, Madison, Wis.
 Hodgson, John Sprague, PH.B. (*Brown Univ.*) 1912
 (1911), Esmond, R. I.
 Hudson, Carl Bibb, A.B. 1912 (1911), Montgomery, Mo.
 Jackson, Arthur Morison, S.B. (*Dartmouth Coll.*)
 1911, Everett
 Janney, James Craik, A.B. 1911, Wynnwood, Pa.
 Johnson, Odin James, A.B. (*Univ. of Minnesota*)
 1911, Lyle, Minn.
 Kibby, Sydney Vernon, A.B. 1908 (1907), Chelsea
 Lawler, John Charles, A.B. (*Holy Cross Coll.*) 1911, Bellows Falls, Vt.
 Lee, Edward Kerk, A.B. (*Loyola Coll.*) 1910, Perryman, Md.
 Lowrey, Lawson Gentry, A.B. (*Univ. of Missouri*)
 1909, A.M. (*ibid.*) 1910, Excelsior Springs, Colo.
 McCaffrey, Jerome Joseph, A.B. (*Holy Cross*
Coll.) 1911, Attleboro
 McGuire, Joseph Hoshal, A.B. (*Eureka Coll.*)
 1911, Eureka, Ill.
 MacPherson, Donald John, S.B. (*Univ. of Roches-*
ter) 1911, Palmyra, N. Y.
 McQuesten, Philip, A.B. (*Dartmouth Coll.*) 1911, Nashua, N. H.
 Magoon, Charles Elmer, A.B. (*Morningside Coll.*)
 1910, Boston
 Mallory, Meredith, A.B. (*Univ. of Illinois*) 1911, Batavia, Ill.
 Meaker, Samuel Raynor, A.B. (*Princeton Univ.*)
 1911, Carbondale, Pa.
 Montgomery, James Blaine, A.B. (*Dartmouth*
Coll.) 1911, Boston
 Morriss, William Sarsfield, A.B. 1911, Fall River
 Murray, George Aloysius, A.B. (*Boston Coll.*) 1909, Dorchester
 Packard, Fabyan, A.B. 1912, Allston
 Peck, Martin William, S.B. (*Dartmouth Coll.*)
 1902, Lynn
 Perkins, William Albert, A.B. 1912, Ogden, Utah
 Plouffe, Bernard Louis, A.B. (*Holy Cross Coll.*)
 1911, Webster
 Raia, Joseph Ernest, A.B. (*Brown Univ.*) 1911, Providence, R. I.
 Redden, William Rufus, A.B. (*Bates Coll.*) 1906, Roxbury
 Richardson, Ira Walter, A.B. (*Colby Coll.*) 1910, Kennebunk, Me.
 Sargent, Arthur Forrest, A.B. (*Dartmouth Coll.*)
 1911, Pittsfield, N. H.

Sharry, Charles Francis, A.B. 1910,	Roxbury
Sowles, Horace Kennedy, A.B. (<i>Clark Univ.</i>) 1910,	Barre, Vt.
Spruit, Charles Booth, A.B. (<i>Illinois Coll.</i>) 1908,	Jacksonville, Ill.
Stern, Neuton Samuel, A.B. 1912,	Memphis, Tenn.
Strauss, Arthur Edgar, S.B. 1912,	St. Louis, Mo.
Thaxter, Langdon Thom, A.B. (<i>Williams Coll.</i>)	
1911,	Portland, Me.
Thomas, Harold, A.B. (<i>Acadia Coll.</i>) 1910,	Wollaston
Tucker, Cassell Clark, A.B. (<i>De Pauw Univ.</i>) 1911,	Greencastle, Ind.
Van Gorder, George Wilson, A.B. (<i>Williams Coll.</i>)	
1911,	Pittsburgh, Pa.
Van Stone, Leonard Mathews, A.B. (<i>Colorado</i>	
<i>Coll.</i>) 1911,	Dallas, Tex.
Washburn, Arthur Lawrence, A.B. 1910,	New York, N.Y.
Woodward, Harry Whiting, A.B. (<i>Bowdoin Coll.</i>)	
1910,	Colorado Springs, Colo.
Wright, Louis Tompkins, A.B. (<i>Clark Univ.</i> ,	
<i>Atlanta, Ga.</i>) 1911,	Atlanta, Ga.

SECOND CLASS

Aaronson, Jacob, A.B. 1912,	Chelsea
Allen, Walter Charles, S.B. (<i>Univ. of Rochester</i>)	
1911,	Rochester, N.Y.
Barrow, William Hulbert, A.B. 1908,	Chelsea
Betteridge, Lawrence Augustine, A.B. 1912,	Boston
Bigelow, George Hoyt, A.B. 1913 (1912),	Framingham
Briggs, Maurice Taggart, A.B. 1912,	E. Lynn
Bronk, Marcellus, A.B. (<i>Cornell Univ.</i>) 1910,	Amsterdam, N. Y.
Butler, Edmund John, A.B. (<i>Boston Coll.</i>) 1912,	Cambridge
Churchill, Kenneth, A.B. (<i>Bowdoin Coll.</i>) 1912,	Newtonville
Dillon, Edward Saunders, A.B. (<i>Princeton Univ.</i>)	
1911,	Woodbury, N. J.
Foley, John Arthur, A.B. 1911,	Dorchester
Gilbert, John Joseph, A.B. (<i>Brown Univ.</i>) 1912,	Woonsocket, R. I.
Goethals, Thomas Rodman, A.B. 1912,	Culebra, C. Z., Panama
Golden, Ross, A.B. (<i>Cornell Coll.</i>) 1912,	Boone, Ia.
Grace, Clarence Milo, A.B. (<i>Washington State</i>	
<i>Univ.</i>) 1912,	Chillicothe, Mo.
Gregg, Alan, A.B. 1911,	Chestnut Hill
Gustafson, Paul, A.B. 1912,	Cambridge
Hamilton, John Homer, S.B. (<i>Oklahoma Agricul-</i>	
<i>tural and Mechanical Coll.</i>) 1910,	Stillwater, Okla.

- Harding, Edward, A.B. 1911,
 Harris, Carl Thorburn, S.B. (*Univ. of Rochester*)
 1912,
 Hodgdon, Frank Wellington, Jr., A.B. 1911,
 Horan, Joseph Carrigan, A.B. (*Sacred Heart Coll.*)
 1911, A.M. (*ibid.*) 1913,
 Houston, David Walker, Jr., A.B. (*Princeton Univ.*)
 1912,
 Hurst, Benoni Price, A.B. (*Amherst Coll.*) 1912,
 Hyman, Clarence Henry, S.B. (*Heidelberg Univ.*)
 1911,
 Koefod, Hilmar, S.B. (*Beloit Coll.*) 1911,
 Lacey, Walter Hamer, A.B. 1912,
 Langmann, Alfred Gustav, A.B. 1912,
 Lanman, Thomas Hinckley, A.B. 1912,
 Learned, Elmer Turell, A.B. (*Yale Univ.*) 1912,
 Lowry, Franklin Patterson, S.B. 1912,
 Lyon, Arthur Bates, A.B. (*Amherst Coll.*) 1912,
 McIntyre, John Archibald, S.B. (*Cornell Coll.*)
 1912,
 Moffat, Barclay Wellington, A.B. 1912,
 Montgomery, Orlando Franklin, A.B. (*Leland*
Stanford Jr. Univ.) 1910,
 Morris, Samuel Leslie, Jr., S.B. (*Davidson Coll.*)
 1911,
 Nichols, Andrew, 3d, A.B. 1912,
 Nissen, Harry Archibald, A.B. (*Univ. of So. Dakota*)
 1911,
 Oberg, Frank Thorwald, A.B. (*Clark Coll.*) 1912,
 Osgood, Howard, 2d, A.B. 1911,
 Oslin, Joseph Edwin, A.B. (*Brown Univ.*) 1910,
 Parker, Frederic, Jr., A.B. 1913,
 Peabody, Charles William, A.B. 1912,
 Putnam, James Jackson, Jr., A.B. 1912,
 Ragle, Benjamin Harrison, A.B. (*De Pauw*
Univ.) 1912,
 Rapport, David Louis, A.B. 1912,
 Redway, Lawrence David, A.B. 1912,
 Rhea, Clarence Ward, A.B. (*Austin Coll.*) 1910,
 Ricci, James Vincent, A.B. (*Brown Univ.*) 1913,
 Roberts, Bertrand Earle, A.B. 1912,
 Settle, Howard Edwin, A.B. 1913 (1912),
 Stidger, Ivan Read, A.B. (*Allegheny Coll.*) 1911,
- Boston
 Spencerport, N. Y.
 Arlington
 Denver, Colo.
 Troy, N. Y.
 Baltimore, Md.
 Payne, O.
 Glenwood, Minn.
 Wollaston
 New York, N. Y.
 Cambridge
 Fall River
 Newton
 Brockton
 Mt. Vernon, Ia.
 Orange, N. J.
 Tulare, Cal.
 Atlanta, Ga.
 Hathorne
 Vermillion, So. Dak.
 Worcester
 Boston
 Boston
 Bedford
 Malden
 Boston
 Spencer, Ind.
 Pittsburgh, Pa.
 Cincinnati, O.
 Forney, Tex.
 Providence, R. I.
 Newton Centre
 Berne, N. Y.
 Cameron, W. Va.

Taylor, John Houghton, A.B. 1913 (1912),	Cambridge
Thomasson, Aaron Hood, A.B. (<i>Lincoln Univ.</i>)	
1896,	Boston
Tully, George Loughlin, A.B. 1912,	Milford
Vail, Harris Holmes, A.B. (<i>Yale Univ.</i>) 1912,	Cincinnati, O.
Viets, Henry Rouse, Jr., S.B. (<i>Dartmouth Coll.</i>)	
1912,	Newton
Waite, John Herbert, S.B. (<i>Bucknell Univ.</i>) 1911,	Lock Haven, Pa.
Weld, Stanley Burnham, A.B. (<i>Dartmouth Coll.</i>)	
1912,	Winchester
Wells, Ward Stanley, S.B. (<i>Grinnell Coll.</i>) 1909,	Nashua, Ia.
Wilbur, George Browning, 2d, S.B. 1912,	W. Newton
Withington, Paul Richmond, A.B. 1912,	Boston

FIRST CLASS

Adams, Frank Dennette, LITT.B. (<i>Princeton Univ.</i>)	
1913,	Washington, D. C.
Adams, William Bradford, A.B. 1913,	Springfield
Ashton, Leslie Orrell, S.B. (<i>Dartmouth Coll.</i>) 1913,	Lawrence
Astrin, Albert, A.B. 1911,	Boston
Baker, Horace Mitchell, S.B. (<i>Mass. Agricultural Coll.</i>) 1912,	Selbyville, Del.
Belknap, Robert Willis, A.B. (<i>Bowdoin Coll.</i>) 1913,	Damariscotta, Me.
*Berry, Francis Browne (<i>Harvard</i>),	Providence, R. I.
Borchardt, Henry Gustav, A.B. 1913,	Meriden, Conn.
Brady, John William Stansbury, A.B. 1910,	Baltimore, Md.
Brennan, James Andrew, Jr., A.B. (<i>Holy Cross Coll.</i>) 1913,	East Hartford, Conn.
Brennan, James Thomas, A.B. (<i>Rock Hill Coll.</i>)	
1909,	Clarksburg, W. Va.
Brown, Frederick Ronald, A.B. (<i>McGill Univ.</i>)	
1913,	Danville, Quebec, Can.
Buchanan, Edwin Porter, S.B. (<i>Princeton Univ.</i>)	
1913,	Pittsburgh, Pa.
Bugbee, Edwin Percy, S.B. (<i>Tufts Coll.</i>) 1912,	Methuen
Busby, Eldon Durward, A.B. (<i>McGill Univ.</i>) 1913,	Ottawa, Ont.
Carey, Henry Reginald, A.B. 1913,	Cambridge
†Cassidy, Franklin Chester,	Medford
Chapman, William Harden, A.B. 1913,	E. Brewster

* Has completed work in Harvard College for the Bachelor's degree.

† Admitted as per Clause II of Admission Requirements, page 20.

Cheney, Marshall Chipman, A.B. (<i>Univ. of California</i>) 1909,	Berkeley, Cal.
Chisholm, Lawrence Chesley, S.B. (<i>Dartmouth Coll.</i>) 1913,	Salem
Clifford, Randall, A.B. 1912,	New Bedford
Clifford, Wallace Alton, A.B. (<i>Bates Coll.</i>) 1908,	South Paris, Me.
Cunningham, Thomas Donald, S.B. (<i>Dartmouth Coll.</i>) 1913,	Denver, Colo.
Davis, David Alfred, A.B. (<i>Howard Univ.</i>) 1912,	Galveston, Tex.
*Dresel, Rudolph Ludwig (<i>Univ. of California</i>),	San Francisco, Cal.
†Eaton, Harold Burney,	Frankfort a.m., Germany
FitzGerald, Edmund Boyd, A.B. 1913,	Wollaston
Fogg, Neil Augustus, A.B. (<i>Bowdoin Coll.</i>) 1913,	Freeport, Me.
†Frost, Morton Fletcher,	Rumford, R.I.
Gould, Adrian Gordon, PH.B. (<i>Brown Univ.</i>) 1913,	Youngstown, O.
Goulding, Arthur Melville, A.B. (<i>Univ. of Toronto</i>) 1910,	Toronto, Ont., Can.
Grimm, Charles Henry, S.B. (<i>Valparaiso Univ.</i>) 1912,	Chicago, Ill.
†Hadfield, Jonathan Pyott,	Edgewood, R. I.
Hall, Francis Cooley, LITT.B. (<i>Princeton Univ.</i>) 1913,	Brookline
Hutchinson, Charles William, A.B. 1906, A.M. 1907,	Framingham
Hutchinson, Rollo Wilson, A.B. (<i>Dartmouth Coll.</i>) 1913,	Milford, N. H.
Isaacson, Abraham Samuel, A.B. (<i>Brown Univ.</i>) 1913,	Bristol, R. I.
Johnston, James Scott, A.B. (<i>Univ. of Michigan</i>) 1910, A.M. (<i>ibid.</i>) 1911,	Ithaca, N.Y.
King, Edward, A.B. (<i>Univ. of Georgia</i>) 1910,	Atlanta, Ga.
*Klein, Armin (<i>Harvard</i>),	Chelsea
Landry, James Maguire Anthony, A.B. (<i>St. Mary's Coll.</i>) 1911, A.M. (<i>ibid.</i>) 1911,	Pawtucket, R. I.
Leighton, Roy Fisher, PH.B. (<i>Univ. of Vermont</i>) 1912, S.M. (<i>ibid.</i>) 1913,	Canton, N.Y.
Lurie, Moses Hyman, D.M.D. 1913,	Dorchester
Lynch, Frank Joseph, PH.B. (<i>Holy Cross Coll.</i>) 1910,	Holyoke
Mabon, Thomas McCance, S.B. (<i>Princeton Univ.</i>) 1913,	Pittsburgh, Pa.

* Has completed work for the Bachelor's degree.

† Admitted as per Clause II of Admission Requirements, page 20.

- McCarthy, James Matthew, A.B. (*Holy Cross Coll.*) 1913,
 MacGhee, Aaron Lawson, S.B. (*Colby Coll.*) 1913,
 Marshall, John Ross, A.B. 1913,
 Meysenbug, Ludo von, A.B. (*Washington and Lee Univ.*) 1913,
 *Moloney, James (*Harvard*),
 Neal, Kemp Prather, A.B. (*Trinity Coll.*) 1913,
 Nisbet, Douglas Heath, S.B. (*Davidson Coll.*) 1913,
 Norbury, Frank Garm, A.B. (*Illinois Coll.*) 1912,
 A.M. (*Univ. of Illinois*) 1913,
 Nye, Robert Nason, A.B. 1913,
 †Oerting, Harry,
 Parkins, Leroy Edward, A.B. (*Simpson Coll.*) 1912,
 • Parmenter, Derric Choate, A.B. 1913,
 Paul, Benjamin Delos, S.B. (*Purdue Univ.*) 1912,
 Pennell, Walter Johnson, A.B. (*Bates Coll.*) 1913,
 Persons, Carl Clough, A.B. (*Wesleyan Univ., Conn.*) 1913,
 Porter, Ralph Orlando, S.B. (*Agricultural Coll. of Utah*) 1912,
 Pratt, Aaron Paul, A.B. (*Clark Univ.*) 1913,
 *Reardon, Frank Leo (*Harvard*),
 Reynolds, Patrick Joseph, A.B. (*Holy Cross Coll.*) 1912, A.M. (*Boston Coll.*) 1913,
 Richardson, John Purver, Jr., A.B. (*Washington and Lee Univ.*) 1913,
 Sattler, Robert Ray, A.B. (*Univ. of Michigan*) 1911,
 Savage, Joseph Carr, A.B. (*Univ. of Colorado*) 1913,
 Scholl, Albert John, Jr., A.B. (*Leland Stanford Jr. Univ.*) 1913,
 †Shirley, John Newton,
 Sigel, Glenn Lara, A.B. (*Amherst Coll.*) 1912,
 Spring, Henry Powell, A.B. (*Univ. of Vermont*) 1913,
 †Strahlmann, Louis,
 Surls, Joseph Kiddoo, A.B. (*Williams Coll.*) 1913,
 Thompson, Hartwell Greene, A.B. (*Yale Univ.*) 1913,
- Woonsocket, R. I.
 Augusta, Me.
 Brookline
 New Orleans, La.
 So. Boston
 Monroe, N. C.
 Charlotte, N. C.
 Springfield, Ill.
 Springfield
 St. Paul, Minn.
 Knowlton, Ia.
 Gloucester
 Brookston, Ind.
 Auburn, Me.
 Maynard
 Porterville, Utah
 So. Framingham
 So. Boston
 Lowell
 Wytheville, Va.
 Cincinnati, O.
 Denver, Colo.
 San Francisco, Cal.
 So. Duxbury
 Portland, Ore.
 Dresden, Germany
 San Diego, Cal.
 Reading, Pa.
 Taftville, Conn.

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† Admitted as per Clause II of Admission Requirements, page 20.

Thorne, Fred Sanborne,	Gardiner, Me.
Townsend, De Wayne, A.B. (<i>Univ. of Wisconsin</i>)	
1912,	Oconomowoc, Wis.
Wearn, Joseph Treloar, S.B. (<i>Davidson Coll.</i>)	
1913,	Charlotte, N. C.
Welles, Edward Sawtelle, S.B. (<i>Iowa State Coll.</i>)	
1913,	Los Angeles, Cal.
Wendell, Percy Langdon, A.B. 1913,	Jamaica Plain
Wetherell, Bryant Davis, A.B. (<i>Williams Coll.</i>)	
1912,	Holyoke
White, Joseph Warren, A.B. 1913,	Roxbury
Wylde, Russell Arthur, A.B. (<i>Dartmouth Coll.</i>)	
1912,	Lawrence
Young, William Bartholomew, A.B. 1913,	Rockland
Zovickian, Hovhannes, Ph.B. (<i>Brown Univ.</i>) 1909,	
A.M. (<i>ibid.</i>) 1909,	Providence, R. I.

SPECIAL STUDENTS TAKING REGULAR WORK

Berger, Harry Calvin, A.B. (<i>Univ. of Kansas</i>)	
1912,	Halstead, Kan.
Bressler, Charles Wesley, A.B. (<i>Missouri State Univ.</i>) 1913,	Grant City, Mo.
Calvin, Claudius Virgil,	Meadville, Pa.
Grannis, Irving Van Vliet, S.B. (<i>Univ. of Wisconsin</i>)	
1912,	Menomonie, Wis.
Hatch, Floyd Frost, A.B. (<i>Univ. of Utah</i>) 1912,	Heber City, Utah
Hunter, William Edward, A.B. (<i>Univ. of Utah</i>)	
1913,	American Fork, Utah
Jackson, George Henry, Jr.	Newtonville
Jones, Merritt La Count, S.B. (<i>Univ. of Wisconsin</i>)	
1912,	Wausau, Wis.
Kerr, William John, S.B. (<i>Univ. of California</i>)	
1912,	Los Angeles, Cal.
O'Donnell, John Joseph, Jr.	E. Boston
Shannon, William Lloyd, A.B. (<i>McGill Univ.</i>) 1909,	
M.D., C.M. (<i>ibid.</i>) 1911,	Vancouver, B. C.
Shortell, Joseph Henry,	Salem
Smith-Petersen, Marius Mygaard, S.B. (<i>Univ. of Wisconsin</i>) 1910,	
Taylor, Clifton Clark, A.B. (<i>Dartmouth Coll.</i>) 1912,	Milwaukee, Wis.
	Bridgeport, Conn.

† Admitted as per Clause II of Admission Requirements, page 20.

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH	2
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE	
FOURTH CLASS	67
THIRD CLASS	81
SECOND CLASS	62
FIRST CLASS	84
SPECIAL STUDENTS	14
TOTAL	310

GRADUATES OF COLLEGES

Acadia College	1	Princeton University	7
Agricultural College of Utah	1	Purdue University	1
Allegheny College	1	Rock Hill College	1
Amherst College	1	Sacred Heart College	2
Austin College	1	St. John's College	1
Bates College	6	St. Mary's College	2
Beloit College	1	Simpson College	1
Boston College	3	South Dakota State College	9
Boston University School of Medicine	1	Leland Stanford Jr. University	4
Bowdoin College	6	Trinity College	1
Brown University	15	Tufts College	2
Bucknell University	1	University of Alabama	1
Clark College	1	University of California	4
Clark University (Georgia)	1	University of Colorado	2
Clark University	5	University of Georgia	1
Colby College	5	University of Illinois	2
Colorado College	3	University of Michigan	4
Cornell College	3	University of Minnesota	2
Cornell University	1	University of Missouri	4
Dartmouth College	19	University of New Brunswick	1
Davidson College	3	University of Pittsburgh	1
De Pauw University	2	University of Rochester	7
Dickinson College	1	University of Southern California	1
Eureka College	1	University of South Dakota	1
Grinnell College	1	University of Texas	1
Harvard University	94	University of Toronto	1
Heidelberg University	1	University of Utah	1
Holy Cross College	15	University of Vermont	1
Howard University	2	University of Wisconsin	1
Illinois College	2	University of Wooster	1
Iowa State College	1	Upper Iowa University	1
Jefferson Medical College	1	Valparaiso University	1
Kansas University	4	Washington and Lee University	1
Lafayette College	1	Washington State University	1
Lake Forest College	1	Wesleyan University	1
Lincoln University	1	Westminster College	1
Loyola College	1	Williams College	1
McGill University	4	Yale University	1
Massachusetts Agricultural College	1	Total	30
Morningside College	1	Counted more than once	1
Oklahoma Agricultural and Mechanical College	1	Total Number of College Graduates	29
Ohio Wesleyan University	2	Number of Colleges	8
Colegio Pinillos	1		

ANNOUNCEMENT FOR 1914-15

The next session of the Medical School begins September 28, 1914. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Monday, the 28th of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should write prior to this time to the Secretary of the Harvard Medical School, in regard to conditions for admission and the applicant's ability to meet these.

CALENDAR

1914.

- Sept. 21, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 26, Saturday.* Examination in Chemistry for admission.
- Sept. 28, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Monday.* Columbus Day: a holiday.
- Nov. 2, Monday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 26, Thursday.* Thanksgiving Day: a holiday.
- Nov. 30, Monday.* Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1914, TO JAN. 2, 1915, INCLUSIVE

1915.

- Jan. 1, Friday.* Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Friday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1915.
- Jan. 27, Wednesday.* Mid-year Examinations begin.
- Jan. 30, Saturday.* Payment of the second instalment of the tuition-fee is required on or before this date.

- Feb. 1, Monday.* **Second half-year begins.**
Feb. 22, Monday. Washington's Birthday : a holiday.
April 1, Wednesday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 18 TO APRIL 24, INCLUSIVE

- May 1, Saturday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
May 1, Saturday. Last day for receiving applications for the Bullard Fellowships.
May 1, Saturday. Last day for receiving applications for Scholarships for 1915-16 (except the Cheever and Hayden Scholarships).
May 1, Saturday. Last day for receiving applications of candidates for the degree of M.D. in 1915.
May 31, Monday. Memorial Day : a holiday.
June 1, Tuesday. Examinations begin.
June 14, Monday. Examination in Chemistry for admission.
June 24, Thursday. **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 26, INCLUSIVE

- Sept. 20, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 25, Saturday. Examination in Chemistry for admission.
Sept. 27, Monday. **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
Oct. 12, Tuesday. Columbus Day : a holiday.
Nov. 1, Monday. Last day for receiving essays for the William H. Thorndike Prize.
Nov. 25, Thursday. Thanksgiving Day : a holiday.
Nov. 30, Tuesday. Last day for receiving applications for the Cheever and Hayden Scholarships.
Dec. 31, Friday. Last day for receiving dissertations for the Boylston Medical Prizes.

OFFICIAL REGISTER OF HARVARD UNIVERSITY

[*Entered, March 24, 1905, at Boston, Mass., as second-class matter,
under Act of Congress of July 16, 1894.*]

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These publications include :—

The Annual Reports of the President and of the Treasurer.

The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University ; the Descriptive Pamphlet ; the Announcements of the several Departments ; etc., etc.

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45

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THE HARVARD MEDICAL SCHOOL

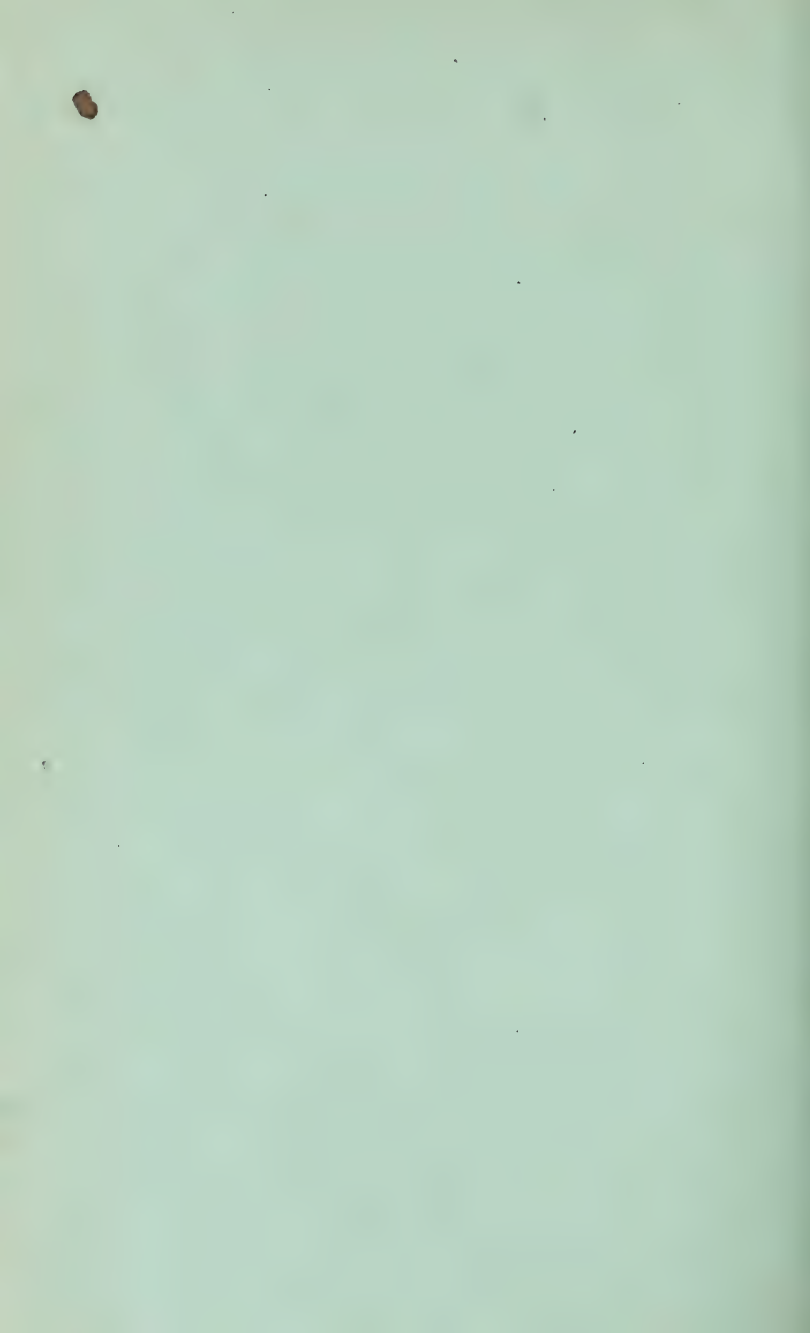
LONGWOOD AVENUE, BOSTON, MASS.

1914-15

WITH AN ANNOUNCEMENT FOR 1915-16



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ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

OF

HARVARD UNIVERSITY

FOR

1914-15

WITH AN ANNOUNCEMENT FOR 1915-16



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CONTENTS

	PAGE
ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL	11
ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL	11
ADMINISTRATIVE BOARD OF THE MEDICAL SCHOOL	12
ADMISSION OF STUDENTS	20
ADMISSION TO ADVANCED STANDING	20
ANNOUNCEMENT FOR 1915-16	106
AUSTIN TEACHING FELLOWS	19
CANCER COMMISSION OF HARVARD UNIVERSITY	30
CLINICAL ADVANTAGES	26
DEGREES	23
DEGREES CONFERRED IN 1914	90
DIVISION OF STUDENTS	21
EXAMINATIONS	21
FACULTY COUNCIL	11
FACULTY OF THE MEDICAL SCHOOL	8
FEES AND EXPENSES	24
FELLOWSHIPS	31
FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS	68
GENERAL STATEMENT	7
GRADUATE SCHOOL OF MEDICINE	39
HOSPITAL APPOINTMENTS	30
LIBRARIES	31
MEDICAL SCHOOL CALENDAR	5
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	42-66
Anatomy	42
Bacteriology	48
Biological Chemistry	48
Comparative Pathology	51
Comparative Physiology	47
Dermatology and Syphilis	62
Diseases of the Nervous System	63
Laryngology and Rhinology	66
Legal Medicine	51
Medicine	53

	PAGE
Obstetrics and Gynaecology	59
Ophthalmology	61
Orthopedic Surgery	59
Otology	61
Pathology	41
Pediatrics	61
Pharmacology	51
Physiology	41
Preventive Medicine and Hygiene	51
Surgery	51
Tropical Medicine	51
OTHER INSTRUCTORS OF THE MEDICAL SCHOOL	1
PRIZES	3
SCHOLARSHIPS	3
SPECIAL STUDENTS	3
STUDENTS	9
TABLE OF DIVISION OF STUDIES	4
TABULAR VIEW OF UNDERGRADUATE COURSES	8
WARREN MUSEUM	2

MEDICAL SCHOOL CALENDAR

1914.

- Sept. 21, Monday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 26, Saturday.* Examination in Chemistry for admission.
- Sept. 28, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Monday.* Columbus Day : a holiday.
- Nov. 2, Monday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 26, Thursday.* Thanksgiving Day : a holiday.
- Dec. 10, Thursday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.

RECESS FROM DEC. 23, 1914, TO JAN. 2, 1915, INCLUSIVE

1915.

- Jan. 15, Friday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1915.
- Jan. 27, Wednesday.* Mid-year Examinations begin.
- Jan. 30, Saturday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Monday.* **Second half-year begins.**
- Feb. 22, Monday.* Washington's Birthday : a holiday.
- April 1, Thursday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 18 TO APRIL 24, INCLUSIVE

- May 1, Saturday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 1, Saturday.* Last day for receiving applications for the Bullard Fellowships and the Moseley Travelling Fellowships.

- May 1, Saturday.* Last day for receiving applications for Scholarships for 1915-16 (except the Cheever, Haven, and Hayden Scholarships).
- May 1, Saturday.* Last day for receiving applications of candidates for the degree of M.D. in 1915.
- May 31, Monday.* Memorial Day: a holiday.
- June 1, Tuesday.* Examinations begin.
- June 14, Monday.* Examination in Chemistry for admission.
- June 24, Thursday.* **Commencement.**
- SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 26, INCLUSIVE
- Sept. 15, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Tuesday.* Columbus Day: a holiday.
- Nov. 1, Monday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 25, Thursday.* Thanksgiving Day: a holiday.
- Dec. 10, Friday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships
- Dec. 31, Friday.* Last day for receiving dissertations for the Boylston Medical Prizes.

HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

The Harvard Medical School started as a branch of the University in 1782 when three professorships of medicine were established. The first degrees in medicine were conferred in 1788. Before 1811, the degree conferred was that of Bachelor of Medicine; after that date the degree of Doctor of Medicine was established. The first Medical School was built in Boston in 1815. In 1906, the Medical School moved into its new quarters on Longwood Avenue. For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors. At the present time several hospitals are being or have been constructed on the grounds adjacent to the Medical School. A statement in regard to these hospitals and the other hospitals in which teaching is done will be found on pages 26-29 of this catalogue.

In 1910, under the supervision of the Department of Preventive Medicine and Hygiene, courses leading to a degree of Doctor of Public Health were established.

In 1912 the Graduate School of Medicine was established to take charge of the graduate instruction throughout the year, which had previously been given by the Harvard Medical School under the Courses for Graduates and the Summer School of Medicine. The Graduate School of Medicine will also take charge of all special students who are not candidates for the degree of Doctor of Medicine. The Department of Tropical Medicine also offers instruction in the Medical School. For particulars, see the Announcement of the School of Tropical Medicine.

The academic year begins on the Monday preceding the last Wednesday in September, and ends on the Thursday preceding the last Wednesday in June. There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

OFFICERS OF INSTRUCTION *

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* The Faculty of the Medical School, together with the Dean and Faculty of the Dental School and the Dean of the Graduate School of Medicine, comprise the Faculty of Medicine.

† Arranged, with the exception of the President, Dean, and Secretary, on the basis of collegiate seniority.

‡ The address is Boston, unless otherwise stated.

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 HAROLD C. ERNST, M.D., A.M., *Professor of Bacteriology*.
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 ROBERT W. LOVETT, M.D., *Professor of Orthopedic Surgery*.
 REID HUNT, M.D., *Professor of Pharmacology*.
 HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic*.
 FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology*.

ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL

The Dean's Office is in the Administration Building of the Medical School, Room 104. It is open daily from 9 to 1 and from 2 to 5, except on Saturdays, Sundays, and holidays; on Saturdays it is open from 9 to 1. Those seeking information about the Medical School should inquire at this office.

The Bursar's Office is in Dane Hall, Harvard University, Cambridge. It is open daily, except Sundays and holidays, from 9 to 1, for the receipt of fees, payments, and other financial business. A representative of the Bursar will be in the Administration Building at the Medical School at stated hours on certain days at the opening of each term for the receipt of fees from regular students.

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL

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Chairman of the Committee on the Degree of Doctor of Public Health:

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Chief Clerk in the Dean's Office: HELEN G. MEDBURY.

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- EMIL GOETSCH, M.D., *Assistant in Surgery*,
Peter Bent Brigham Hospital.
- TORR W. HARMER, M.D., *Assistant in Anatomy*,
Harvard Medical School.
- RICHARD M. SMITH, M.D., *Assistant in Pediatrics*, 329 Beacon St.
- LESLEY H. SPOONER, M.D., *Assistant in Bacteriology*, 260 Clarendon St.
- JAMES H. YOUNG, M.D., *Assistant in Pediatrics*,
430 Centre St., Newton.
- WALTER J. DODD, M.D., *Instructor in Roentgenology*,
Mass. General Hospital.
- ALBERT A. W. GHOREYEB, M.D., *Assistant in Pathology*,
Harvard Medical School.
- JAMES A. HONEIJ, M.D., *Fellow in Bacteriology*,
Harvard Medical School.
- CHARLES H. LAWRENCE, JR., M.D., *Assistant in Medicine*, 522 Commonwealth Ave.
- EUGENE L. PORTER, PH.D., *Research Fellow in Physiology*,
Harvard Medical School.
- IRVING J. WALKER, M.D., *Assistant in Surgery*, 527 Beacon St.
- GEORGE CLYMER, M.D., *Assistant in Neurology*,
366 Commonwealth Ave.
- THEODORE W. ELY, M.D., *Fellow in Pediatrics*, 374 Marlborough St.
- ARTHUR A. HOWARD, M.D., *Clinical Instructor in Pediatrics*, 520 Commonwealth Ave.
- HENRY F. KEEVER, M.D., *Assistant in Pediatrics*,
258 Melrose St., Auburndale.
- HALSEY B. LODER, M.D., *Assistant in Surgery*,
520 Commonwealth Ave.
- RICHARD H. MILLER, M.D., *Assistant in Anatomy*, 279 Clarendon St.
- GEORGE W. MORSE, JR., M.D., *Assistant in Anatomy*, 30 Pinckney St.
- LOUIS H. NEWBURGH, M.D., *Alumni Assistant in Medicine*, 419 Beacon St.
- JOHN E. OVERLANDER, M.D., *Fellow in Medicine*,
Consumptives' Hospital, Mattapan.

- WALTER W. PALMER, M.D., *Fellow in Medicine*,
Massachusetts General Hospital.
- J. HOWARD BROWN, S.M., *Assistant in Comparative Pathology*,
84 Southborne Road, Jamaica Plain.
- ERNEST G. CRABTREE, M.D., *Fellow in Surgery*,
Massachusetts General Hospital.
- REGINALD FITZ, M.D., *Fellow in Physiology*,
Peter Bent Brigham Hospital.
- ALFRED LUGER, M.D., *Assistant in Roentgenology*
and *Assistant in Medicine*,
697 Huntington Ave.
- WILLARD S. PARKER, M.D., *Assistant in Medicine*,
355 Marlborough St.
- FRANK A. PEMBERTON, M.D., *Fellow in Gynaecology*,
355 Marlborough St.
- WARREN R. SISSON, M.D., *Instructor in Pathology*,
Peter Bent Brigham Hospital.
- HARRY P. CAHILL, M.D., *Research Fellow in Otology*,
298 Marlborough St.
- JOHN E. DWYER, JR., M.D., *Assistant in Pathology*,
878 Mass. Ave., Cambridge.
- JOHN W. HAMMOND, JR., M.D., *Fellow in Bacteriology*,
657 Boylston St.
- ALBERT A. HORNOR, M.D., *Assistant in Medicine*,
Boston City Hospital.
- GEORGE A. LELAND, JR., M.D., *Alumni Assistant in Surgery*,
354 Commonwealth Ave.
- ANDREW R. MACAUSLAND, M.D., *Assistant in Anatomy*,
240 Newbury St.
- JAMES H. MEANS, M.D., *Henry P. Walcott Fellow in Clinical Medicine*,
196 Beacon St.
- RICHARD D. BELL, M.D., *Fellow in Biological Chemistry*,
26 Bow St., Somerville.
- FREDERICK S. HAMMETT, S.M., A.M., *Assistant in Comparative Anatomy and Teaching Fellow in Biological Chemistry*,
Sharon.
- JAMES P. O'HARE, M.D., *Fellow in Medicine*,
1775 Dorchester Ave., Dorchester.
- RAYMOND B. PARKER, M.D., *Alumni Assistant in Obstetrics*,
24 McLean St.
- CARLON TENBROECK, M.D., *Assistant in Comparative Pathology*,
Harvard Medical School.
- KURT H. THOMA, D.M.D., *Assistant in Dental Anatomy*,
330 Dartmouth St.

- PAUL D. WHITE, M.D., *Fellow in Medicine*,
Massachusetts General Hospital.
- EDWARD A. BOYDEN, A.M., *Teaching Fellow in His-
tology and Embryology*, Harvard Medical School.
- HAROLD I. GOSLINE, M.D., *Assistant in Neuro-
pathology*, Psychopathic Hospital.
- FRANCIS B. GRINNELL, M.D., *Instructor in Preven-
tive Medicine and Hygiene and Charles Follen Folsom
Teaching Fellow in Hygiene*, Charles River Village.
- GILBERT HORRAX, M.D., *Arthur Tracy Cabot Fellow
in charge of the Laboratory of Surgical Research*,
Harvard Medical School.
- CYRUS H. FISKE, M.D., *Assistant in Biological Chem-
istry*, Harvard Medical School.
- HARRY C. SOLOMON, M.D., *Assistant in Neuro-
pathology*, Psychopathic Hospital.
- MAX M. MILLER, A.M., *Teaching Fellow in Histology
and Embryology*, Harvard Medical School.
- EDWARD P. PHELPS, S.M., *Assistant in Biological
Chemistry*, 42 Pitman Ave., Greenwood.
- THEODORE F. ZUCKER, S.M., *Assistant in Biologi-
cal Chemistry*, 63 Oxford St., Cambridge.
- McKEEN CATTELL, S.B., *Teaching Fellow in Physi-
ology*, Harvard Medical School.

AUSTIN TEACHING FELLOWS

- FRANK A. HARTMAN, Ph.D., *in Physiology*, Harvard Medical School.
- MacIVER WOODY, M.D., *in Surgery*, Boston City Hospital.
- RICHARD S. AUSTIN, M.D., *in Bacteriology*, Harvard Medical School.
- PAUL E. LINEBACK, M.D., *in Histology and Em-
bryology*, Harvard Medical School.
- GOODWIN LeB. FOSTER, A.B., *in Biological Chemistry*, Sharon.

HARVARD MEDICAL SCHOOL

ADMISSION OF STUDENTS

As candidates for the Degree of Doctor of Medicine the School receives the following :

I. Graduates in arts or science of approved colleges or scientific schools who can furnish evidence

(a) That they have such knowledge of physics, of biology, of general chemistry, and of organic chemistry,* as may be obtained from one year's course in each of these subjects as given in approved colleges and scientific schools.

(b) That they have a reading knowledge of French or German.

II. Students who have completed two years of work in a college or scientific school of high rank, provided they present certificates (1) that they have stood in the upper third of their class, (2) that one year's course has been taken in physics, in biology, and in general chemistry and in organic chemistry, and (3) that they have a reading knowledge of German or French.

These requirements are to be satisfied in full before matriculation.

Partial deficiencies in single subjects may be made up prior to admission by courses in the Harvard Summer-School.

Students are requested to apply for admission before July 1st on registration blanks to be furnished by the Secretary.

The Administrative Board reserves the right in its discretion to refuse applicants if the number admitted is as large as can be effectively taught.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other approved medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions :—

They must have fulfilled the requirements for admission enumerated under I or II.

They must furnish a satisfactory certificate of time spent in medical study, successfully completed, at least equal to that spent by the class to which they seek admission.

* In organic chemistry college half-courses of good grade may be accepted if satisfactorily completed.

They must furnish satisfactory certificates that they have done satisfactory laboratory and practical work in the subjects already pursued by the class to which they seek admission.

They must pass all examinations required to have been passed by the class which they seek to enter.

Before they can be admitted to the third or fourth class they must pass the first general examination.

Graduates of other medical schools of recognized standing may be admitted to advanced standing in accordance with the above regulations.

The minimum time of residence at this School for candidates for the degree of M.D. shall be one year; all candidates for the degree of M.D. must perform in full the work of the fourth year of the regular curriculum.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required practical examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class; until he has passed the first general examination.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has failed on all of the practical examinations on first-year subjects.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Monday, the first day of the academic year.

Students are required not to engage as hospital assistants during term time, except in so far as required by the School curriculum.

Any student may obtain a certificate of his period of connection with the School.

The Administrative Board reserves the right to require the withdrawal of any student at any time whenever in the opinion of his instructors it is manifest that he is incompetent for his work, or for any reason he is unfitted to continue his course.

EXAMINATIONS

There will be two kinds of examinations, general and practical. Two general examinations, each both oral and written, will be required of the candidate for the M.D. degree, the first after the completion of the second year, and the second after the completion of the fourth year of medical study. Practical examinations will be held in the various subjects of the curriculum at the end of the respective courses and in September.

For the first general examination the student may choose either June or September, but no student will be admitted to this examination until he has completed the courses included in the examination, and has passed practical examinations in these various courses. The subjects comprised in the first general examination will be Anatomy, Histology and Embryology, Physiology, Biological Chemistry, Pathology, Pharmacology and Bacteriology. This examination further shall assume and require an elementary knowledge of Physics, Inorganic and Organic Chemistry, and Biology.

For the second general examination the student may choose either June or January, but no student will be admitted to this examination until he has passed satisfactorily the first general examination, has completed four years of medical study in four different calendar years, including the regular fourth-year course of study at the Harvard Medical School, has completed the courses included in this examination, and has passed practical examinations in these courses. The subjects comprised in the second general examination will be Preventive Medicine and Hygiene, Medicine, Surgery, Pediatrics, Obstetrics, Gynaecology, Dermatology, Syphilis, Neurology, Psychiatry, Ophthalmology, Otology and Laryngology.

No student who has failed to pass a general examination will be permitted to repeat the examination within the calendar year in which he failed. Any student who fails three times in a general examination will be debarred from further attempts.

If a portion of the general examination (written or oral) is taken by a student, this will constitute an attempt to pass the examination. Failure to complete all parts, unless prevented by illness, shall be regarded as a failure to pass and necessitate a year's interval before the student may appear again for examination.

The practical examinations will be conducted by the several Departments, and the student may choose whether he will take the practical examinations at the end of each course, or near the time of the opening of the following academic year at times assigned by the several Departments.

In addition to the above examinations every student is required:—

To dissect the three parts of the body to the satisfaction of the demonstrator;

To take charge of and report on six cases in Obstetrics, under supervision and instruction;

To furnish satisfactory evidence of having engaged in the practical exercises in Medicine and Surgery.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

Every student having entered the Medical School previous to 1912-13, after two failures to pass in any subject, must give notice twenty-four hours in advance at the Dean's Office of his intention to take each subsequent examination in that subject and pay a charge of three dollars.

Students entering in 1912-13 and subsequent years, after two failures to pass a practical examination, must pay a fee of three dollars at the Dean's office before appearing for each additional practical examination in the same subject.

DEGREES

DEGREE OF DOCTOR OF MEDICINE

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent in the regular fourth-year course of this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates entering the Medical School previous to 1912-13 who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates entering the Medical School in and after 1912-13, who pass the final general examination with honor, shall receive the degree of Doctor of Medicine *cum laude*, and candidates who pass both general examinations with honor shall receive the degree of Doctor of Medicine *magna cum laude*.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

DEGREE OF DOCTOR OF PUBLIC HEALTH

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of Doctor of Public Health must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of Doctor of Public Health, and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medi-

cine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of Doctor of Public Health. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of Doctor of Public Health.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students.

Candidates for the degree of Master of Arts must be Bachelors of Arts of Harvard College, or Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences. Candidates must pursue an approved course of study in medical science for at least one year.

Candidates for the degree of Doctor of Philosophy must fulfil certain preliminary requirements, must devote to approved advanced studies not less than two years, — at least one of which must be spent in residence at this University, and must pass general examinations and present an account of original work in an accepted thesis, before being granted the degree.

Further information concerning these degrees may be obtained from Assistant Professor LAWRENCE J. HENDERSON, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

DEGREE OF DOCTOR OF MEDICINE

The fees are :—For matriculation, five dollars; for instruction (including laboratory charges except breakage, damage and loss of apparatus), two hundred and twenty-five dollars for each year (if in two payments, at the first, one hundred and thirty-five dollars; at the second, ninety dollars); for a half-year alone, one hundred and thirty-five dollars.* The matriculation fee and the instruction fee (if in two payments, the first instalment thereof) are to be paid to the Bursar† punctually at the beginning of the academic year, without the presentation of a bill; and the second instal-

* Students who were members of the School in 1912-13 or earlier will be allowed to complete the course for the fees prescribed in the Catalogue of 1912-13.

† The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

ment is to be paid on or before January 31. All charges for breakage, damage and loss of apparatus are payable to the School in accordance with the requirements established by the several departments in which they occur. A student may rent a microscope from the School upon application to the Committee on Microscopes. A deposit of one dollar with the Dean will entitle the student to the use of a locker in the School buildings.

No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

BOND REQUIRED OF STUDENTS

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School and have subsequently received their bond from the Bursar.

DEGREE OF DOCTOR OF PUBLIC HEALTH

A fee of \$150 annually is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

STILLMAN INFIRMARY FEE

Not later than October 5 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

WITHDRAWAL FROM THE SCHOOL

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. *No degree can be granted until the student has paid the full tuition fee for each year (first, second, third, fourth) in which he has been registered as a member of the School.*

If a student withdraws from the School for part of a year for good and sufficient reason as determined by the Faculty, he may leave his fees deposited with the Bursar to be used at some later date for instruction equivalent to that which he missed by his withdrawal. If a student shortens his four years' work by working in the Summer School of Medicine, he must still pay a full tuition fee for each year he is registered as a member of the School.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students, who are admitted freely to the Out-Patient departments, wards and operating rooms of these hospitals:—

The Peter Bent Brigham Hospital.—This general hospital has been in active operation since February, 1913. The hospital is for general medical and surgical cases, and is situated on ground adjacent to the Medical School buildings. There are in all about two hundred beds, and there is a medical and surgical out-patient department which is open for patients throughout the twenty-four hours. DR. HENRY A. CHRISTIAN, Hersey Professor of the Theory and Practice of Physic, and DR. HARVEY

CUSHING, Moseley Professor of Surgery, in the Harvard Medical School, have been appointed by the trustees of the Hospital Physician-in-chief and Surgeon-in-chief respectively.

The Collis P. Huntington Memorial Hospital. — This Hospital, which has been erected by the Cancer Commission of Harvard University on the Medical School grounds, affords opportunity for the study of human tumor cases, with the advantage of a close approximation of clinical and laboratory facilities. The aim of the hospital is the study of special problems with the view of adding to the knowledge of the natural history and the rational treatment of tumors, and also to be of public service in affording means for early diagnosis and in carrying out treatment or giving advice regarding therapeutic measures. Accommodations are provided for twenty-four in-patients; out-patients are also received at stated hours.

The Massachusetts General Hospital. — During the past year, six thousand two hundred and fifty-one patients were treated in the wards, five thousand four hundred and twenty-four patients were treated in the Accident Ward, and there were one hundred forty-seven thousand four hundred and twenty-eight visits to the Out-Patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the surgical building. Last year there were three thousand eight hundred and eighty-seven operations in the house and three thousand two hundred and thirteen in the Out-Patient Department and Accident Ward. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedics, Diseases of the Genito-Urinary System, and Syphilis. Two Dalton scholarships, of \$500 each, are open annually to the house pupils.

The Boston City Hospital. — During the past year, eighteen thousand and seventy-seven cases were treated in its wards, and there were two hundred and eight thousand one hundred and ninety-seven visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, forty-nine thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In this hospital, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over four thousand nine hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than eight hundred patients were delivered during the last year in the Hospital. In the out-patient department, nearly two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary.—About one hundred and ten thousand visits were made by out-patients at this charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery. The opportunities in children's work are unusually good, as over one-third of the out-patients are children and there is, in addition, a well-equipped Hospital for Children, with thirty beds chiefly for medical cases.

Infants' Hospital (Rotch Memorial Building).—The wards of the Hospital are devoted entirely to infants. Twenty beds are at present in use. The number will, however, probably be soon increased. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital.—In April, 1914, the new buildings of the Hospital on Longwood Avenue, adjacent to the Harvard Medical School, were opened. During the past year more than eighteen hundred cases were treated in the wards and nearly thirty thousand visits were made to the out-patient departments. Instruction in pediatrics, surgery, and orthopedic surgery is given by members of the hospital staff.

The McLean Hospital.—During the past year a daily average number of two hundred and twenty patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, occupation, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, pathological, chemical, and psychological work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all

cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital.—During the past year twenty-one hundred and eighty-four patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Besides regular commitments, emergency, voluntary and temporary care cases are received; the whole number of patients admitted last year was nine hundred and seventy-three, including many instructive examples of the various forms of mental disease.

The Psychopathic Hospital.—This is the receiving hospital of the Boston State Hospital, situated on Fenwood Road, one block removed from the Medical School grounds. The hospital was opened to patients in June, 1912. It has one hundred beds and receives patients at the rate of over one thousand five hundred a year. The Out-Patient Department receives patients at the rate of about one thousand a year. This large admission rate insures the presence at all times in the hospital wards of a varied clinical and pathological material.

The Massachusetts Charitable Eye and Ear Infirmary.—Over sixty-one thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

The Free Hospital for Women.—This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital has a capacity of sixty-seven beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week, beginning at nine o'clock in the morning and at three o'clock in the afternoon, excepting Saturday afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

THE CANCER COMMISSION OF HARVARD UNIVERSITY

The Cancer Commission of Harvard University was founded in 1899, by the late Mrs. Caroline Brewer Croft, who left in her will a sum of money for the investigation of the cause and treatment of cancer. Dr. J. Collins Warren and Dr. Henry K. Oliver were the Trustees of this fund. Since that time other sums have been contributed for cancer research and the Cancer Commission of Harvard University was organized in 1909, consisting of the following members: J. Collins Warren, M.D., Chairman; Henry K. Oliver, M.D., and J. Collins Warren, M.D., for the Caroline Brewer Croft Fund; Henry P. Walcott, M.D., and Arthur T. Cabot, M.D., for the Corporation of Harvard College; William T. Councilman, M.D., and Theobald Smith, M.D., for the Harvard Medical School. To fill the vacancy caused by the death of Dr. Arthur T. Cabot, Dr. Edward H. Bradford was appointed by the Corporation in 1912; Mr. Arthur Adams was also appointed Treasurer, and Dr. Robert B. Greenough, Secretary.

Under this Commission research on cancer problems has been carried on, and five reports of research work have been published. Investigations were carried on in the laboratories of the Harvard Medical School, and at the Massachusetts General Hospital until April, 1912, when the Collis P. Huntington Memorial Hospital (page 27) was completed. The work of the Cancer Commission is at present carried on in the laboratories of the Harvard Medical School and in the Huntington Hospital. E. E. Tyzzer, M.D., Assistant Professor of Pathology, is Director; Thomas Ordway, M.D., Instructor in Medicine, is Physician in charge of the Hospital, and Ellis Kellert, M.D., is Assistant Physician; Henry A. Christian, M.D., Consulting Physician; Robert B. Greenough, M.D., Consulting Surgeon. Miss I. W. Mason is Matron and Superintendent of the Hospital.

William Duane, Ph.D., Assistant Professor of Physics, is Research Fellow of the Cancer Commission in charge of the research work on radium and radioactive substances, and their preparation for therapeutic use. He is assisted by William T. Bovie, M.D., Research Fellow in Physics, and Clarence C. Little, S.D., in Genetics.

During the year 1913-14, one hundred and nine new patients were cared for in the wards of the hospital, and one hundred and ninety-six patients were seen as out-patients.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, many of them preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in the Administration Building and in three of the laboratory buildings contain the literature of the subjects taught in this School. These libraries are open daily and contain about 23,900 volumes, 34,000 pamphlets, and receive 260 current periodicals.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 82,000 bound volumes and 56,000 pamphlets, and nearly 650 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character

and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and fifty dollars each, and of the last, two hundred and seventy-five dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

THE JAMES JACKSON CABOT FELLOWSHIP; with an income of three hundred and fifty dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. In 1912 Guy C. Cabot added four thousand dollars to this fund. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a fellowship "to aid and encourage practical work in scientific medicine."

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of

five hundred and seventy-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand dollars. Founded in 1910 by **FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D.** "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

WILLIAM O. MOSELEY, JR., TRAVELLING FELLOWSHIPS; two, with a stipend of one thousand seven hundred and fifty dollars each, for the purpose of studying medicine in Europe. In January, 1912, Mrs. William O. Moseley left a bequest of seventy-four thousand dollars to establish two travelling Fellowships, to be granted annually to two men who have attended the Harvard Medical School for three or four years, and who have given evidence of their diligence and ability, the election of such men to be made by the President and proper officers connected with the Medical School. Applications for these Fellowships must be handed to the Dean on or before May 1st.

ARTHUR TRACY CABOT FELLOWSHIP. In 1913, Dr. and Mrs. Frederick C. Shattuck gave twenty-five thousand dollars for the establishment of a Fellowship in Surgery in memory of Arthur Tracy Cabot, M.D., of the Class of 1872, Fellow of the Corporation. The holder of the Fellowship is not ordinarily to engage in active private practice while holding it but to devote himself to the advancement of Surgery whether in the United States or elsewhere. The nomination to this Fellowship is by preference to be in the hands of the Moseley Professor of Surgery.

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

SCHOLARSHIPS

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred and twenty-five dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships or this foundation have been assigned to the Harvard Medical School.

GEORGE HAVEN SCHOLARSHIPS, with an income of eleven hundred dollars, were founded in 1913 from a bequest under the will of George Haven, the income to be used annually for scholarships to deserving students of the first year in the Medical School, the amount of such scholarships to be at the discretion of the Scholarship Committee.

The **LEWIS AND HARRIET HAYDEN SCHOLARSHIP** for colored student was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income, two hundred and fifty dollars, may be divided between two or more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

WILLIAM OTIS JOHNSON SCHOLARSHIP, with an income of one hundred and seventy-five dollars, was founded in 1912 from a bequest under the will of Mrs. William O. Johnson, in memory of her husband, William Otis Johnson, M.D., of the Class of 1845.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of three hundred dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

The **JOSEPH PEARSON OLIVER SCHOLARSHIP,** with an income of four hundred dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of three hundred dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

The **JOHN THOMSON TAYLOR SCHOLARSHIP,** with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious students needing assistance. The next assignment in the Medical School will be made in 1916.

JAMES EWING MEARS GIFT IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of an degree from Harvard University. For further particulars, see University Catalogue for 1914-15, page 593.*

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further in the University Catalogue for 1914-15, page 567.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. This Scholarship, founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee or Kentucky. The terms of gift are quoted further on page 611 of the University Catalogue for 1914-15.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever, Hayden, and Haven Scholarships must be handed to the Director of Scholarships on or before *December 10th*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

BOYLSTON MEDICAL PRIZES

These prizes, which are *open to public competition*, are offered for the best dissertation on questions in medical science proposed by the Boylston Medical Committee.

For 1915 there is offered a prize of three hundred dollars and the Boylston Prize Medal, for the best dissertation on the results of original research in medicine, the subject to be chosen by the writer.

Dissertations entered for this prize must be in the hands of the Secretary, H. C. ERNST, M.D., Harvard Medical School, Boston, Mass., on or before December 31, 1915.

In awarding these prizes, preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear, in place of the author's name, some sentence or device, and must be accompanied by a sealed packet, bearing the same sentence or device, and containing within the author's name and residence.

Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within *one year* after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

1. That the Board does not consider itself as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
2. That, in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows of Harvard College, and consists of the following physicians: WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; THEOBALD SMITH, M.D., WILLIAM T. PORTER, M.D., HENRY A. CHRISTIAN, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize.—A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his

graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes. — The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue for 1914-15, pages 536-541 and 589-592.

SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. Hitherto such students have been registered as members of the Harvard Medical School; but, with the establishment of the Graduate School of Medicine, October 1, 1912, these special students are enrolled in the membership of that School, if they are not candidates for the degree of Doctor of Medicine. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work, and must be accepted as a student by the Administrative Board of the Graduate School of Medicine.

GRADUATE SCHOOL OF MEDICINE

On October 1, 1912, graduate instruction in medicine was organized as a Department of the Faculty of Medicine of Harvard University, with a separate Dean and Administrative Board.

The object is, by better organization and the development of teaching facilities, — both clinical and laboratory, — to offer graduates in medicine opportunities to continue their studies in as thorough and scientific a manner as in the Medical School proper.

Adequate opportunities for study will be offered for those graduates who wish to review past studies and for those who wish to keep abreast of recent advances in medicine. Other courses will be offered for those who

are interested in special subjects, and the excellent opportunities for advanced study and for research in all departments of medical science will be made available for those who are qualified by previous training to undertake such work. Thus graduates in medicine, both of remote and of recent date, whether desiring fundamental reviews or in quest of the attainment of higher standards, are provided for. Graduates of recognized medical schools will be accepted as students.

While all courses are intended primarily for those who hold degrees from recognized medical schools, certain courses in the scientific subjects are adapted to the needs of advanced students and teachers of science. Such persons may be admitted to courses on the approval of the Administrative Board.

Undergraduate students of medicine may be admitted by vote of the Administrative Board to such courses as they are qualified to take. Special consideration for the needs of such students will be given in the plans for summer courses.

The laboratory facilities in the buildings of the Harvard Medical School and at some of the hospitals are available for graduate instruction, as are also abundant clinical opportunities of all kinds in the following institutions : —

Massachusetts General Hospital,	Children's Hospital,
Boston City Hospital,	Infants' Hospital (Rotch Memorial Building),
Peter Bent Brigham Hospital,	Massachusetts Babies' Hospital,
Carney Hospital,	McLean Hospital,
Boston Dispensary,	Boston State Hospital,
Massachusetts Eye and Ear Infirmary,	Danvers State Hospital.
Boston Lying-in Hospital,	
Free Hospital for Women,	

Clinical and laboratory instruction will be conducted in small classes so that students may receive personal attention.

The fees for separate courses vary from \$5 to \$125, according to the nature of the instruction and the duration of the course. An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the office of the Dean of the Graduate School of Medicine, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the Dean of the Graduate School of Medicine, Harvard Medical School, Longwood Avenue, Boston, Mass.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH-YEAR ELECTIVES
Anatomy	Bacteriology	Medicine	Anatomy 1, 2, 3, 4, 5, 6, and 7
Histology and Embryology	Pathology	Surgery (written 2 hrs., practical 1 hr.)	Surgery 1, 2, 3, 4, 5, and 6
Physiology	Anatomy	Clinical Surgery (written 1 hr., practical 1 hr.)	Orthopedic Surgery 1 and 2
Biochemistry	Preventive Medicine and Hygiene	Orthopedic Surgery	Obstetrics and Gynaecology 1 and 2
	Pharmacology	Roentgenology	Dermatology and Syphilis 1, 2, 3, and 4
	<i>Medicine</i>	Obstetrics	Neurology 1 and 2
	<i>Surgery</i>	Gynaecology	Psychiatry 1
	<i>Neurology</i>	Pediatrics	Ophthalmology 1 and 2
	<i>Dermatology</i>	Dermatology	Otology 1, 2, and 3
		Syphilis	Laryngology 1 and 2
		Neurology	
		Psychiatry	
		Ophthalmology	
		Otology	
		Laryngology	
		<i>Genito-Urinary Surgery</i>	
		<i>Legal Medicine</i>	

NOTE.—Subjects not completed in a given year are in *italics*. In the fourth year, electives must be chosen aggregating 1000 hours; both half-courses and quarter-courses are offered occupying 125 and 65 hours respectively.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
Ch.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
H.M.H.	= Huntington Memorial Hospital.
I.H.	= Infants' Hospital (Rotch Memorial).
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
P.B.B.H.	= Peter Bent Brigham Hospital.
P.H.	= Psychopathic Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

— — —, *James Stillman Professor of Comparative Anatomy and Director of the Laboratory of Anatomy.*

HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology and Instructor in Anatomy.*

JOHN L. BREMER, M.D., *Assistant Professor of Histology.*

JOHN WARREN, M.D., *Assistant Professor of Anatomy.*

DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy and Associate in Surgery.*

FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology.*

ALEXANDER S. BEGG, M.D., *Instructor in Comparative Anatomy.*

ROBERT M. GREEN, M.D., *Instructor in Anatomy.*

ARCHIBALD MCK. FRASER, M.D., *Assistant in Anatomy.*

WALTER M. BOOTHBY, M.D., *Assistant in Anatomy.*

EDWARD H. RISLEY, M.D., *Assistant in Anatomy.*

JOHN BRYANT, M.D., *Assistant in Anatomy.*

TORR W. HARMER, M.D., *Assistant in Anatomy.*

RICHARD H. MILLER, M.D., *Assistant in Anatomy.*

GEORGE W. MORSE, JR., M.D., *Assistant in Anatomy.*

ANDREW R. MACAUSLAND, M.D., *Assistant in Anatomy.*

FREDERICK S. HAMMETT, S.M., A.M., *Assistant in Comparative Anatomy and Teaching Fellow in Biological Chemistry.*

KURT H. THOMA, D.M.D., *Assistant in Dental Anatomy.*

EDWIN A. BOYDEN, A.M., *Teaching Fellow in Histology and Embryology.*

MAX M. MILLER, A.M., *Teaching Fellow in Histology and Embryology.*

ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy.*

PAUL E. LINEBACK, M.D., *Austin Teaching Fellow in Histology and Embryology.*

In this department instruction is given in Anatomy, Comparative Anatomy, Histology and Embryology. The department occupies the Morgan Anatomical Building, the dissecting rooms being in the wing-designated BI, and the laboratories for Histology, Embryology, and Comparative Anatomy in the wing BII. There are separate rooms for fourth-year and graduate students and for various kinds of technical work. The class work is carried on by sections in unit rooms, which are well lighted, and thoroughly equipped. Each unit room measures twenty-three by thirty feet and is designed to accommodate twelve or twenty-four students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about ten thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for work in human and comparative anatomy and embryology.

The Embryological Collection is a unique feature of the laboratory. It comprises over nineteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes sixty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet obtained. The collection of embryological models contains the standard series and many unique original models.

REGULAR COURSES

First Year. — This course is intended to teach the normal gross anatomy, histology, and embryology of the human body. Half of the time is devoted to work in the dissecting rooms, the other half to work in the histological and embryological laboratories. In the study of gross anatomy, each student makes a complete dissection of one side of the human body, and all of the class dissect the same part at the same time. The general order of dissection is as follows: — body-wall; lower extremity; thoracic, abdominal and pelvic cavities; upper extremity; head; neck. The study of the skeleton is carried on with the dissection. The lectures and demonstrations are arranged to follow closely the work in the dissecting room.

The part of the course dealing with microscopic anatomy is a study of cells, tissues, and organs, from the developmental standpoint. Cell structure and the fundamental tissues are considered first. This is followed by a study of chick embryos of 30 and 48 hours and pig embryos of 20 days, in which special stress is laid on the origin and growth of the different organs. During the remainder of the course the organs of the adult are studied in succession. In connection with the uterus, the human placenta and fetal membranes are considered. The month of January is devoted to the central nervous system and sense organs.

Microscopes. — Every student is advised to purchase a microscope, but microscopes may be rented at four dollars for the term.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 68.

FIRST YEAR

<i>October, November, December, and January</i>		HOURS
Lectures. Asst. Professors LEWIS, WARREN, and BREMER.	<i>Eleven lectures a week, nine hours.</i>	144
Demonstrations.	<i>To sections of the class, at the pleasure of the instructors.</i>	
Laboratory work.	<i>Six and one-half hours, five times a week.</i>	520

Second Year. — The second-year course in anatomy will be given during February and March. The class will be divided into sections and each section will have approximately four hours per week. The work will consist chiefly of the careful study and drawing of frozen sections and of dissections and specimens of various sorts. There will also be a certain number of lectures or demonstrations on applied anatomy to emphasize those practical details which are essential for clinical work. The work in the laboratory is planned to be carried on in close coöperation with the clinical studies in medicine and surgery.

SECOND YEAR

February and March

Lectures, demonstrations, and laboratory work to sections of the class, *four hours per week.* 36

INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

ERNEST G. MARTIN, Ph.D., *Assistant Professor of Physiology.*

PERCY G. STILES, Ph.D., *Instructor in Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

JAMES R. MARTIN, Ph.B., *Teaching Fellow in Physiology.*

WALTER L. MENDENHALL, M.D., *Teaching Fellow in Physiology.*

McKEEN CATTELL, S.B., *Teaching Fellow in Physiology.*

REGINALD FITZ, M.D., *Fellow in Physiology.*

EUGENE L. PORTER, Ph.D., *Research Fellow in Physiology.*

FRANK A. HARTMAN, Ph.D., *Austin Teaching Fellow in Physiology.*

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a

record of his experiments and observations in a laboratory note-book. These records are examined and criticised.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology, based upon reading of the records of original investigations, is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Wednesday morning of each week is largely devoted to work in the Library. Some of the theses, which are closely related to the regular instruction, are presented before the class. Among those read publicly during the past academic years were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is quizzed orally every week by the instructing staff. Usually at the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. The examination books are returned, corrected, to the students. Five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Students who have had, before entering this course, a large part of the laboratory work or much laboratory experience may be permitted to coöperate with members of the staff in special investigations. Such students are excused from the preparation of theses.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 69.

FIRST YEAR (Second half)	HOURS
Laboratory experiments. Professor CANNON, Asst. Professor MARTIN, Drs. STILES, MENDENHALL, FITZ, and Messrs. CATTELL and HARTMAN. <i>Daily.</i>	176
Quizzes (14). <i>One hour Saturdays.</i>	14
Written tests (5). <i>One hour Mondays.</i>	5
Lectures (90). Professor CANNON, Asst. Professor MARTIN, Drs. FORBES and STILES.	90
Special demonstrations (30). Professor CANNON and Dr. FORBES.	15
Discussion of Theses (30).	10
Thesis. Written by each student from the original sources.	
Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the professor in charge.

II. *Comparative Physiology of Muscle.* Professor PORTER. *Three hours weekly during February and March.*

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. *Mondays and Thursdays, 5 to 6 P.M., throughout the year.*

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 70.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*
LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry.*

WALTER R. BLOOR, Ph.D., *Assistant Professor of Biological Chemistry.*

CYRUS H. FISKE, M.D., *Assistant in Biological Chemistry.*

EDWARD P. PHELPS, S.M., *Assistant in Biological Chemistry.*

THEODORE F. ZUCKER, S.M., *Assistant in Biological Chemistry.*

FREDERICK S. HAMMETT, A.M., *Assistant in Comparative Anatomy and Teaching Fellow in Biological Chemistry.*

HENRY LYMAN, M.D., *Fellow in Biological Chemistry.*

RICHARD D. BELL, M.D., *Fellow in Biological Chemistry.*

GOODWIN LEB. FOSTER, A.B., *Austin Teaching Fellow in Biological Chemistry.*

First Year.—The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, and of the general principles and more important facts of physiological chemistry.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 70.

FIRST YEAR (Second half)

HOURS

Lectures. Professor FOLIN and Asst. Professor BLOOR. *One hour, five times a week.* 80

Laboratory work. Professor FOLIN, Asst. Professor BLOOR, Dr. FISKE, and MESSRS. PHELPS, ZUCKER, HAMMETT, and FOSTER. *Two and one-half hours, five times a week.* 200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Associate Professor of Bacteriology.*

CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*

ALBERT E. STEELE, M.D., *Instructor in Bacteriology.*

CLEAVELAND FLOYD, M.D., *Instructor in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*
 HORACE K. BOUTWELL, M.D., *Assistant in Bacteriology.*
 LESLEY H. SPOONER, M.D., *Assistant in Bacteriology.*
 JAMES A. HONEIJ, M.D., *Fellow in Bacteriology.*
 JOHN W. HAMMOND, M.D., *Fellow in Bacteriology.*

RICHARD S. AUSTIN, M.D., *Austin Teaching Fellow in Bacteriology.*

Second Year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 70.

SECOND YEAR

HOURS

Lectures. Professor ERNST. <i>Daily, except Saturdays, during October and November.</i>	40
Laboratory work. Professor ERNST, and Drs. PAGE, STEELE, PERRY, BOUTWELL, and FLOYD. <i>Two to three hours daily during October and November.</i>	120

Pathology

WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy.*
 FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*
 JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology.*
 ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology.*
 FREDERICK H. VERHOEFF, M.D., *Instructor in Ophthalmic Pathology.*
 JAMES E. ASH, M.D., *Instructor in Pathology.*
 WARREN R. SISSON, M.D., *Instructor in Pathology.*
 JOHN E. DWYER, Jr., M.D., *Assistant in Pathology.*
 ALBERT A. W. GHOREYEB, M.D., *Assistant in Pathology.*

Second Year. — The course in Pathology consists of laboratory work and lectures. The basis of the laboratory work is the systematic course in pathological histology. In connection with this there are demonstrations of material bearing on the subjects studied and experiments. In this work the students are divided into small sections. The demonstrations are given to these sections and the experimental work on anaesthetized

animals is carried out by the sections under the direction and supervision of Dr. ASH, who has charge of this branch of the work. The demonstrations and experimental work are given in rooms adjoining the main laboratory which are adequately provided with apparatus. Both the demonstrations and experiments are in connection with the subjects which are being studied. Lectures are given five days in the week, the object of the lectures being rather to expand and coördinate the knowledge which the student is acquiring by his study of material than to impart new information. During the entire period of the course groups of students are sent to the various hospitals to see and assist in post-mortem examinations. Each group prepares microscopical specimens of the tissues from the autopsy, which are studied under direction and described. No attempt is made to separate the subject of Pathology into general pathology and pathological anatomy, but the subject is studied as a whole. In teaching the student is taught methods of work, is given material, and directed; but he is taught to work independently. Tumors and other material coming from the surgical clinics are made full use of in the course.

On Saturdays conferences and recitations are substituted for the regular laboratory work.

In the forenoons of the second and third weeks of December, Professor T. SMITH gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 71.

SECOND YEAR	HOURS
Lectures. Professor COUNCILMAN. <i>Daily for fourteen weeks, October, November, December (first week only), and January.</i>	84
Laboratory work. Professor COUNCILMAN, Drs. ASH and SISSON. <i>Three hours daily during the forenoons of October, November, December (first week only), and January.</i>	252
Demonstrations and laboratory work. Professor T. SMITH. <i>Two hours daily, second and third weeks of December.</i>	24

Demonstration of autopsy material. Dr. J. H. WRIGHT. (M.G.H.) *One hour a week.*

Neuropathology. Professor SOUTHARD. *Afternoons in December.* 45

Surgical Pathology. Associate Professor NICHOLS. *Afternoons in January.* 36

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital, during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

THEOBALD SMITH, M.D., LL.D., S.D., *George Fabyan Professor of Comparative Pathology.*

MARSHAL FABYAN, M.D., *Instructor in Comparative Pathology.*

J. HOWARD BROWN, S.M., *Assistant in Comparative Pathology.*

CARLON TENBROECK, M.D., *Assistant in Comparative Pathology.*

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 72.

SECOND YEAR

Lectures. Professor T. SMITH. (H.M.S.) *One hour daily, second and third weeks of January.* 12

Demonstrations and laboratory work. Professor T. SMITH, Assistant Professor TYZZER, and Dr. FABYAN. *Two hours daily, second and third weeks in December.* 24

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene.*

EDWARD G. BIRGE, M.D., *Instructor in Preventive Medicine and Hygiene.*

FRANCIS B. GRINNELL, M.D., *Assistant in Preventive Medicine and Hygiene, and Charles Follen Folsom Teaching Fellow in Hygiene.*

Second Year. — The instruction consists of lectures, demonstrations, and laboratory work.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 73.

SECOND YEAR

HOURS

Lectures, demonstrations, and laboratory work. Professor ROSENAU and assistants. *Three times a week, second half-year.* 48

Pharmacology

REID HUNT, M.D., *Professor of Pharmacology.*

WORTH HALE, M.D., *Assistant Professor of Pharmacology.*

Courses in pharmacology are given in the second and in the fourth years. In the second year the instruction is given by lectures, recitations, demonstrations, and a laboratory course in which the students have an opportunity of learning the physical and chemical properties of the most important drugs and of performing experiments illustrating the physiological actions of a number of these. A few exercises are given in pharmacy and materia medica, the work consisting of demonstrations and practical exercises. Some attention is also given to toxicology. During the fourth year an opportunity is offered to students of doing more advanced work in experimental pharmacology.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 73.

SECOND YEAR

Lectures and demonstrations. Professor HUNT and Asst. Professor HALE.

One hour, three times a week, second half-year. 48

Laboratory work. *Two hours, twice a week, second half-year.* 32

Medicine

- GEORGE G. SEARS, M.D., *Clinical Professor of Medicine.*
DAVID L. EDSALL, M.D., S.D., *Jackson Professor of Clinical Medicine.*
HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*
RICHARD C. CABOT, M.D., *Assistant Professor of Medicine.*
ELLIOTT P. JOSLIN, M.D., *Assistant Professor of Medicine.*
WILLIAM H. SMITH, M.D., *Instructor in Medicine.*
THOMAS ORDWAY, M.D., *Instructor in Medicine.*
CHANNING FROTHINGHAM, Jr., M.D., *Instructor in Medicine.*
HENRY F. HEWES, M.D., *Instructor in Medicine.*
FRANKLIN W. WHITE, M.D., *Instructor in Medicine.*
WILLIAM H. ROBESY, Jr., M.D., *Instructor in Medicine.*
JOSEPH H. PRATT, M.D., *Instructor in Medicine.*
EDWIN A. LOCKE, M.D., *Instructor in Medicine.*
FREDERICK T. LORD, M.D., *Instructor in Medicine.*
RALPH C. LARRABEE, M.D., *Assistant in Medicine.*
FRANCIS W. PALFREY, M.D., *Assistant in Medicine.*
WILLIAM B. ROBBINS, M.D., *Assistant in Medicine.*
GERALD BLAKE, M.D., *Assistant in Medicine.*
CHARLES L. OVERLANDER, M.D., *Assistant in Medicine.*
ALBERT A. HORNOR, M.D., *Assistant in Medicine.*
CHARLES H. LAWRENCE, Jr., M.D., *Assistant in Medicine.*
WILLARD S. PARKER, M.D., *Assistant in Medicine.*
LOUIS H. NEWBURGH, M.D., *Alumni Assistant in Medicine.*
I. CHANDLER WALKER, M.D., *Alumni Assistant in Medicine.*
JOHN L. OVERLANDER, M.D., *Fellow in Medicine.*
WALTER W. PALMER, M.D., *Fellow in Medicine.*
ALFRED LUGER, M.D., *Fellow in Medicine.*
JAMES P. O'HARE, M.D., *Fellow in Medicine.*
PAUL D. WHITE, M.D., *Fellow in Medicine.*
JAMES H. MEANS, M.D., *Henry P. Walcott Fellow in Clinical Medicine.*

The instruction given by the Department of Medicine consists of both clinical and laboratory work. The clinical work is given by means of lectures, clinical lectures, and practical work in the Out-Patient Department and wards of the hospitals. Laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research.

The general plan of the work will be to instruct the students during the second half of the second year in the methods of history-taking, physical examination, and clinical laboratory technique, to drill the students in the third year as assistants in the Out-Patient Departments of the hospitals, and in the fourth year to give them continued contact with patients by having them serve as clinical clerks in the hospital wards. Much of this work will be conducted in small sections, while lectures and clinical lectures will be given for the class with the view of presenting to the students a more comprehensive knowledge of medicine. This instruction will be in part at the Harvard Medical School, in part at the Peter Bent Brigham Hospital, the Massachusetts General Hospital, the Boston City Hospital, and several of the special hospitals. In these hospitals an abundant and varied clinical material is available for the conduct of these various exercises.

Second and Third Years.—*Lectures and recitations.* Lectures and recitations on selected topics will be given at the Medical School.

Clinical Lectures.—Clinical lectures in which the students are called upon to take an active part will be given in the amphitheatre of the Peter Bent Brigham Hospital, the Massachusetts General Hospital, and the Boston City Hospital.

Clinical Exercises.—Small sections of the class will be drilled thoroughly in the hospitals in the taking of histories, methods of physical examination, and in the examination of urine, blood, sputum, and gastric contents.

Laboratory.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 73.

SECOND YEAR			HOURS
Lectures on selected topics.	Professor CHRISTIAN. (H.M.S.)	Twice a week, second half-year.	32
Clinical lectures.	Professor SEARS. (B.C.H.)	Once a week, second half-year.	16
Lectures.	Professor EDSALL. (M.G.H.)	Once a week, second half-year.	16
Exercises in sections, conducted by eight assistants under the general supervision of Dr. ROBEY. Each student has fifty-two exercises supplemented by demonstrations and recitations for the entire class			96

Laboratory exercises.	Dr. HEWES and assistants.	<i>Three times a week, second half-year. Two hour periods.</i>	HOURS 96
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THIRD YEAR

Lectures on selected topics.	Professor CHRISTIAN.	(P.B.B.H.)	<i>Twice a week, first half-year.</i>	32
Case teaching, exercises and discussion of selected topics.	Asst. Professor CABOT.	(H.M.S.)	<i>Twice a week, second half-year.</i>	32
Lectures on applied therapeutics.	Professor SEARS.	(H.M.S.)	<i>Once a week, second half-year.</i>	16
Clinical lectures.	Professor CHRISTIAN.	(P.B.B.H.)	<i>Once a week throughout the year.</i>	32
Clinical lectures.	Professor EDSALL (M.G.H.) and Professor SEARS (B.C.H.).		<i>Once a week throughout the year.</i>	32
Exercises in sections as student assistants in the Out-patient Departments at the M.G.H., B.C.H., or P.B.B.H.	<i>Each section has forty-eight exercises of three hours each.</i>			144

FOURTH YEAR

A two-month service as clinical clerk in the wards of the M.G.H., B.C.H., or P.B.B.H. is required of each student.

Tropical Medicine

RICHARD P. STRONG, M.D., *Professor of Tropical Medicine*, will supervise the instruction in Tropical Medicine. Professors HAROLD C. ERNST, THEOBALD SMITH, MILTON J. ROSENAU, and HENRY A. CHRISTIAN will constitute an Advisory Board.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 74.

Surgery

The Department of Surgery includes surgery, clinical surgery, operative surgery, surgical pathology, surgical technique, genito-urinary surgery, Roentgenology, and the laboratory of surgical research.

HARVEY CUSHING, M.D., F.R.C.S., *Moseley Professor of Surgery*.

EDWARD H. NICHOLS, M.D., *Associate Professor of Surgery*.

CHARLES A. PORTER, M.D., *Associate Professor of Surgery*.

PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery*.

J. BAPST BLAKE, M.D., *Assistant Professor of Surgery*.

HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery*.

ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery*.

- HUGH CABOT, M.D., *Assistant Professor of Genito-Urinary Surgery.*
DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy and Associate in Surgery.*
JAMES S. STONE, M.D., *Instructor in Surgery.*
WALTER J. DODD, M.D., *Instructor in Roentgenology.*
CHARLES L. SCUDDER, M.D., *Associate in Surgery.*
WILLIAM E. FAULKNER, M.D., *Associate in Surgery.*
FARRAR COBB, M.D., *Associate in Surgery.*
JOSHUA C. HUBBARD, M.D., *Associate in Surgery.*
DANIEL F. JONES, M.D., *Associate in Surgery.*
JOHN HOMANS, M.D., *Associate in Surgery.*
SAMUEL J. MIXTER, M.D., *Lecturer in Surgery.*
FRED B. LUND, M.D., *Lecturer in Surgery.*
FREDERIC J. COTTON, M.D., *Lecturer in Surgery.*
ERNEST A. CODMAN, M.D., *Lecturer in Surgery.*
FREEMAN ALLEN, M.D., *Lecturer in Anaesthesia.*
FRANK L. RICHARDSON, M.D., *Lecturer in Anaesthesia.*
WALTER M. BOOTHBY, M.D., *Lecturer in Anaesthesia.*
SAMUEL W. ELLSWORTH, M.D., *Assistant in Roentgenology.*
LEROI G. CRANDON, M.D., *Assistant in Surgery.*
WALTER C. HOWE, M.D., *Assistant in Surgery.*
CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*
PERCY BROWN, M.D., *Assistant in Roentgenology.*
HORACE BINNEY, M.D., *Assistant in Genito-Urinary Surgery.*
BETH VINCENT, M.D., *Assistant in Surgery.*
J. DELLINGER BARNEY, M.D., *Assistant in Genito-Urinary Surgery.*
CONRAD JACOBSON, M.D., *Assistant in Surgery.*
WYMAN WHITTEMORE, M.D., *Assistant in Surgery.*
GEORGE W. HOLMES, M.D., *Assistant in Roentgenology.*
EDWARD P. RICHARDSON, M.D., *Assistant in Surgery.*
EMIL GOETSCH, M.D., *Assistant in Surgery.*
IRVING J. WALKER, M.D., *Assistant in Surgery.*
HALSEY B. LODER, M.D., *Assistant in Surgery.*
ALFRED LUGER, M.D., *Assistant in Roentgenology.*
GEORGE A. LELAND, JR., M.D., *Alumni Assistant in Surgery.*
HARRY F. HARTWELL, M.D., *Fellow in Surgery.*
MARK H. WENTWORTH, M.D., *Fellow in Surgery.*
WILLIAM J. BRICKLEY, M.D., *Fellow in Surgery.*
ERNEST G. CRABTREE, M.D., *Fellow in Surgery.*
GILBERT HORRAX, M.D., *Arthur Tracy Cabot Fellow in Charge of the Laboratory of Surgical Research.*
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- MACIVER WOODY, M.D., *Austin Teaching Fellow in Surgery.*

Instruction will be given by lectures, clinical lectures, demonstrations, and recitations, together with section teaching in the laboratories of surgical pathology and of surgical research, and in the wards and out-patient departments of the hospitals. Elective courses will be given in the laboratories of the Harvard Medical School, and in the wards and operating rooms of the hospitals.

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department. Arrangements can be made for such instruction with the Instructor in Roentgenology.

Second Year.—The course in surgery begins in January of the second year. The afternoons in January will be given to surgical pathology, and to surgical therapeutics on alternate days. Laboratory exercises in surgical pathology will be given three days a week, in which will be studied the healing of wounds, fractures, diseases of the bones and joints, and such aspects of pathology as are of special surgical importance. Two clinical lectures a week, illustrating the lesions studied in the laboratory of surgical pathology, will be given at the Boston City Hospital. On two days a week the class will be divided into two sections for practical exercises in surgical therapeutics.

The systematic course of lectures, clinical lectures, demonstrations and recitations will begin in February of the second year—one lecture, one recitation and two clinical lectures a week. In the first two weeks the lectures and clinics will be devoted to surgical therapeutics. The general principles of surgery, beginning with trauma, hemorrhage, sepsis, etc., will be taken up in successive weeks, and illustrated by clinical lectures and demonstrations, until the end of the second half of the second year. During the first nine weeks of the second half of the second year, beginning February 1, section work in surgical technique will be given. Each student will have twelve laboratory exercises of two hours each, on the application of bandages and surgical apparatus, and the preparation and use of surgical material and dressings. Additional exercises will be given in sections, in the hospitals, on the practical application of bandages and surgical appliances. This course in surgical technique is designed to prepare the student for the required two months' "dresser" service in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. Satisfactory service in this capacity during the third year is a necessary requirement for the degree.

Third Year.—During the third year, one lecture, one recitation, and two clinical lectures a week will be given throughout the year. On Wednesday a lecture will be given at the Brigham Hospital at 12.30 P.M., for

the whole class. On Tuesday at 12 M. two clinical lectures will be given, one at the Boston City Hospital and one at the Massachusetts General Hospital, either of which may be attended by the student having section work at one or the other hospital. During May twelve surgical hours, in morning and in afternoon exercises, will be devoted to genito-urinary surgery. During the two months' required out-patient "dresser" service, sections of the class will be assigned to short terms of service in the Genito-Urinary Departments.

Fourth Year.—Opportunity is afforded in the fourth-year elective courses for practical work in the wards and operating rooms of the hospitals, P.B.B.H., M.G.H., B.C.H., and C.H. For a description of the fourth-year courses offered by this department, see page 78.

SECOND YEAR

HOURS

- Laboratory course in Surgical Pathology. Associate Professor NICHOLS. (H.M.S.) *Twelve three-hour exercises during January.* 36
- Laboratory course in Surgical Therapeutics. Professor CUSHING and Associates. (H.M.S.) *Eight three-hour exercises during January.* 24
- Clinical lectures in connection with the course in Surgical Pathology. Associate Professor NICHOLS. (B.C.H.) *Eight exercises during January.* 8
- Clinical lectures in Surgical Therapeutics. Professor CUSHING. (P.B.B.H.) *Four exercises during January.* 4
- Laboratory course in Surgical Therapeutics. Associate Professor PORTER and Assistant Professor LOTHROP and assistants. *Eighteen two-hour exercises for each student during the second half of the second year.* 36
- Lectures and demonstrations. Professor CUSHING, Associate Professors NICHOLS and PORTER, and Associates. (H.M.S.) *Once a week, second half-year.* 16
- Recitations. Assistant Professors LOTHROP and GREENOUGH. *Once a week, second half-year.* 16
- Clinical lectures. Associate Professor PORTER and Assistant Professor GREENOUGH (M.G.H.), Associate Professor NICHOLS and Assistant Professors LOTHROP and BLAKE (B.C.H.). *Twice a week, second half-year.* 32

THIRD YEAR

- Lectures and demonstrations. Professor CUSHING, Associate Professors PORTER and NICHOLS, and Associates. *Once a week, first and second half-year.* 32
- Clinical lectures. Professor CUSHING. (P.B.B.H.) *Once a week, first and second half-year.* 32

Clinical lectures given contemporaneously at the M.G.H. and B.C.H. Associate Professor PORTER and Assistant Professor GREENOUGH (M.G.H.) or Associate Professor NICHOLS and Assistant Professors LOTHROP and BLAKE (B.C.H.). <i>Once a week, first and second half-year.</i>	32
(During May of the third year, four morning and eight afternoon exercises will be devoted to genito-urinary surgery. Assistant Professor HUGH CABOT. (H.M.S. and M.G.H.))	
Recitations. Assistant Professors LOTHROP and GREENOUGH. (H.M.S.) <i>Once a week, first half-year.</i>	16
Case teaching. Assistant Professor BLAKE. (H.M.S.) <i>Once a week, beginning February 1st.</i>	16
Out-patient Surgical Dresser Service. Exercises in sections. Each student has forty-eight exercises of three hours each.	144

Orthopedic Surgery

ROBERT W. LOVETT, M.D., <i>Professor of Orthopedic Surgery.</i>	
ELLIOTT G. BRACKETT, M.D., <i>Associate in Orthopedic Surgery.</i>	
AUGUSTUS THORNDIKE, M.D., <i>Associate in Orthopedic Surgery.</i>	
ROBERT SOUTTER, M.D., <i>Instructor in Orthopedic Surgery.</i>	
ROBERT B. OSGOOD, M.D., <i>Instructor in Orthopedic Surgery.</i>	
HENRY J. FITZSIMMONS, M.D., <i>Fellow in Orthopedic Surgery.</i>	

Third Year. — Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachusetts General Hospitals.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 79.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Professor LOVETT, and Drs. BRACKETT, A. THORNDIKE, SOUTTER, and OSGOOD. (H.M.S. and Ch.H.) <i>Every other week, second half-year.</i>	8
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Obstetrics and Gynaecology

CHARLES M. GREEN, M.D., <i>Professor of Obstetrics and Gynaecology.</i>	
WILLIAM P. GRAVES, M.D., <i>Professor of Gynaecology.</i>	
FRANKLIN S. NEWELL, M.D., <i>Assistant Professor of Obstetrics and Gynaecology.</i>	
MALCOLM STORER, M.D., <i>Instructor in Gynaecology.</i>	
ERNEST B. YOUNG, M.D., <i>Instructor in Gynaecology.</i>	

HOWARD T. SWAIN, M.D., *Instructor in Obstetrics.*

JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*

NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*

ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*

HENRY T. HUTCHINS, M.D., *Assistant in Gynaecology.*

ROBERT M. GREEN, M.D., *Assistant in Obstetrics and Gynaecology.*

RAYMOND B. PARKER, M.D., *Alumni Assistant in Obstetrics.*

RICHARD G. WADSWORTH, M.D., *Fellow in Gynaecology.*

JOHN T. WILLIAMS, M.D., *Fellow in Gynaecology.*

JAMES L. HUNTINGTON, M.D., *Fellow in Gynaecology.*

FRANK A. PEMBERTON, M.D., *Fellow in Gynaecology.*

OBSTETRICS

Third Year. — Instruction is given by lectures, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 80.

SECOND YEAR

HOURS

Lectures. Professor GREEN. (H.M.S.) *Once a week, second half-year.* 16

THIRD YEAR

Lectures and conferences on Obstetrics. Professor GREEN and assistants. (H.M.S.) *Twice a week, first half-year. Once a week, second half-year.* 48

Practical instruction in Clinical Obstetrics. Drs. SWAIN, TORBERT, MASON, DENORMANDIE, R. M. GREEN, and PARKER. *Throughout the year.*

GYNAECOLOGY

Third Year. — Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 80.

THIRD YEAR

HOURS

Lectures. Professors GREEN and GRAVES. (H.M.S.) *Every other week, second half-year.* 8

Clinical exercises. Professor GRAVES, and Drs. HUTCHINS, WADSWORTH, and PEMBERTON (F.H. for W.), Dr. STORER (B.D.), and Drs. MASON, R. M. GREEN, WILLIAMS, and HUNTINGTON (B.C.H.). *In sections, throughout the year. Each student attends six exercises.* 18

Pediatrics

- JOHN L. MORSE, M.D., *Associate Professor of Pediatrics.*
 EDWIN H. PLACE, M.D., *Assistant Professor of Pediatrics.*
 MAYNARD LADD, M.D., *Instructor in Pediatrics.*
 CHARLES H. DUNN, M.D., *Instructor in Pediatrics.*
 HENRY I. BOWDITCH, M.D., *Clinical Instructor in Pediatrics.*
 FRITZ B. TALBOT, M.D., *Clinical Instructor in Pediatrics.*
 ARTHUR A. HOWARD, M.D., *Clinical Instructor in Pediatrics.*
 PHILIP H. SYLVESTER, M.D., *Assistant in Pediatrics.*
 RICHARD M. SMITH, M.D., *Assistant in Pediatrics.*
 JAMES H. YOUNG, M.D., *Assistant in Pediatrics.*
 HENRY F. KEEVER, M.D., *Assistant in Pediatrics.*
 WILLIAM W. HOWELL, M.D., *Fellow in Pediatrics.*
 HAROLD A. GALE, M.D., *Fellow in Pediatrics.*
 THEODORE W. ELY, M.D., *Fellow in Pediatrics.*

Third Year.—The material for instruction is drawn from the Infants' Hospital, the Children's Hospital, the South Department of the Boston City Hospital, and from the Children's Departments of the Massachusetts General Hospital and the Boston Dispensary. Lectures are given on such selected topics as development, living anatomy, the dietetics of early life, diphtheria, the exanthemata, and the gastro-enteric diseases, preparatory for the clinical teaching. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital; and the students are required to take an active part in the examination and discussion of the cases. Sectional teaching at the bedside both at the Children's and Infants' Hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. By means of the very large amount of Pediatric material in the contagious wards, the general subject of

Pediatrics as connected with contagious diseases is especially explained and illustrated. Exercises in case teaching are given in the latter part of the year preparatory for the examination. At the Children's Hospital the students are given instruction in lumbar puncture and in the serum examinations and other diagnostic methods. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

THIRD YEAR		HOURS
Lectures. Associate Professor MORSE and assistants. (H.M.S.)	<i>Once a week throughout the year.</i>	32
Clinical lectures. Associate Professor MORSE and assistants. (Ch.H.)	<i>Once a week throughout the year.</i>	32
Section Teaching. (Ch.H., I.H., and S.D.B.C.H.)	<i>Throughout the year. Each student attends twenty-four exercises during the year.</i>	72

Dermatology and Syphilis

ABNER POST, M.D., *Professor of Syphilis.*

CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology.*

C. MORTON SMITH, M.D., *Instructor in Syphilis.*

FREDERICK S. BURNS, M.D., *Instructor in Dermatology.*

E. LAWRENCE OLIVER, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year. — A course of clinical lectures, clinical exercises, and half-hour examinations and quizzes extending throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 81.

SECOND YEAR		HOURS
Clinical lectures. Assistant Professor WHITE. (M.G.H.)	<i>Once a week, second half-year.</i>	16

THIRD YEAR		HOURS
Lectures on the Anatomy and Therapeutics of the Skin. (Illustrated.) Assistant Professor WHITE. (H.M.S. and M.G.H.)	<i>Every other week, second half-year.</i>	8
Section work (clinical exercises). Drs. BURNS and OLIVER. (M.G.H.)	<i>Each student attends twelve exercises.</i>	36

SYPHILIS

Third Year. — Lectures and clinical instruction are given at the Massachusetts General Hospital.

THIRD YEAR

HOURS

Lectures.	Professor Post. (H.M.S.)	<i>Every other week, second half-year.</i>	8
Clinical lectures.	Professor Post and Dr. SMITH. (M.G.H.)	<i>Once a week, September 29 to November 23.</i>	8
Clinical exercises.	Professor Post and Dr. SMITH. (M.G.H.)	<i>Each student attends six exercises, in sections.</i>	18

Diseases of the Nervous System

The Department of Diseases of the Nervous System is composed of the sub-departments of Neuropathology, Neurology, and Psychiatry.

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*
 EDWARD W. TAYLOR, M.D., *Assistant Professor of Neurology.*
 HERMAN M. ADLER, M.D., *Assistant Professor of Psychiatry.*
 GEORGE A. WATERMAN, M.D., *Instructor in Neurology.*
 JAMES B. AYER, M.D., *Assistant in Neuropathology and Neurology.*
 GEORGE CLYMER, M.D., *Assistant in Neurology.*
 HAROLD I. GOSLINE, M.D., *Assistant in Neuropathology.*
 HARRY C. SOLOMON, M.D., *Assistant in Neuropathology.*

NEUROPATHOLOGY

Second Year.—The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the pathological physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 72.

SECOND YEAR

HOURS

Lectures.	Professor SOUTHARD and assistants.	<i>Afternoons in December.</i>	12
Laboratory work.	Professor SOUTHARD and assistants.	<i>Two hours daily, afternoons in December.</i>	24
Written and practical tests.	Professor SOUTHARD and assistants.	<i>Afternoons in December.</i>	9
Demonstrations at State institutions, voluntary. Special.			

NEUROLOGY

Second Year. — Clinical lectures are given at the Massachusetts General Hospital to the entire class, once a week throughout the second half of the year. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards.

Third Year. — At different times throughout the third year, clinical lectures on Neurology are given at the Massachusetts General Hospital. The class has also an opportunity to partake in the practical work in Neurology in whole sections. Short examinations and conferences are held at intervals during the year. Dr. JAMES J. PUTNAM will give a series of lectures in the spring term on the Principles and Practice of Psycho-Analysis.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 81.

SECOND YEAR

HOURS

Clinical lectures. Assistant Professor TAYLOR. (M. G. H.)	<i>Once a week,</i>	
<i>second half-year.</i>		16

THIRD YEAR

Clinical lectures. Assistant Professor TAYLOR. (M. G. H.)	<i>Once a week,</i>	
<i>November 23 to December 31 and during May.</i>		8
Section teaching. Each student attends six exercises in Neurology.		18

PSYCHIATRY

THIRD YEAR

During January, February, March, and April a clinical lecture will be given once a week at the Psychopathic Hospital. The different forms of mental disease will be discussed and patients exhibiting the symptoms under consideration will be presented.

During the second half-year a series of eight lectures will be given at the Harvard Medical School. This course is designed to present to the student the modern points of view in regard to insanity and the psychoneuroses and the mental diseases of adolescence.

Supplementary instruction is given to the class in small sections in the wards and Out-Patient Department of the Psychopathic Hospital. Each student will examine and report on at least one case of insanity or mental defect.

THIRD YEAR

HOURS

Lectures.	Assistant Professor ADLER. (H. M. S.)	<i>Every other week, second half-year.</i>	8
Clinical lectures.	Assistant Professor ADLER. (P. H.)	<i>Once a week, January, February, March, and April.</i>	16
Section teaching.	Each student attends six exercises in Psychiatry.		18

Ophthalmology

——, *Williams Professor of Ophthalmology.*

ALEXANDER QUACKENBOSS, M.D., *Instructor in Ophthalmology.*

HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*

FRED M. SPALDING, M.D., *Instructor in Ophthalmology.*

GEORGE S. DERBY, M.D., *Instructor in Ophthalmology.*

WILLIAM N. SOUTER, M.D., *Fellow in Ophthalmology.*

Third Year. — Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 82.

THIRD YEAR

HOURS

Lectures.	(H.M.S.)	<i>Every other week, first half-year.</i>	8
Clinical exercises.	Drs. QUACKENBOSS, HASKELL, DERBY, and SPALDING.		
	(E. and E.I.)	<i>In sections, first half-year. Twelve exercises for each student.</i>	36

Otology

——, *Walter Augustus Lecompte Professor of Otology.*

EUGENE A. CROCKETT, M.D., *Assistant Professor of Otology.*

PHILIP HAMMOND, M.D., *Associate in Otology.*

WILLIAM F. KNOWLES, M.D., *Assistant in Otology.*

DAVID H. WALKER, M.D., *Assistant in Otology.*

CALVIN B. FAUNCE, JR., M.D., *Instructor in Otology.*

FRANCIS P. EMERSON, M.D., *Assistant in Otology.*

GEORGE H. POWERS, M.D., *Assistant in Otology.*

GEORGE L. TOBEY, M.D., *Assistant in Otology.*

HENRY P. CAHILL, M.D., *Research Fellow in Otology.*

Third Year. — Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 83.

	THIRD YEAR	HOURS
Lectures. Assistant Professor CROCKETT. (H.M.S.)	<i>Every other week,</i>	8
	<i>first half-year.</i>	
Clinical exercises in sections. (E. and E.I.)	<i>Every student attends</i>	18
	<i>twelve exercises, second half-year.</i>	

Laryngology and Rhinology

ALGERNON COOLIDGE, Jr., M.D., *Professor of Laryngology.*
 HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology.*
 J. PAYSON CLARK, M.D., *Instructor in Laryngology.*
 ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology*
 JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*
 HARRY A. BARNES, M.D., *Instructor in Laryngology.*
 GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*
 JOHN H. BLODGETT, M.D., *Assistant in Laryngology.*
 D. CROSBY GREENE, M.D., *Fellow in Laryngology.*

Third Year. — Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has eight lectures during the first half-year. For the practical work at the Massachusetts General Hospital and the Boston City Hospital, the class is divided into small sections.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 83.

	THIRD YEAR	HOURS
Lectures. Professor COOLIDGE, assisted by Drs. GOODALE, MOSHER, and WRIGHT. (H.M.S.)	<i>Every other week, first half-year.</i>	8
Clinical exercises. Professor COOLIDGE, Assistant Professor MOSHER, and Drs. CLARK, BARNES, GREENE (M.G.H.), COFFIN, and BLODGETT (B.C.H.).	<i>In sections, second half-year. Eighteen hours for each student.</i>	18

FOURTH-YEAR ELECTIVES

The fourth year is devoted to elective courses, with the limitation that each student is required to take not less than three months in courses in which he serves as medical or surgical clinical clerk in hospital ward: (Medicine 1, 2, and 3; Surgery 1, 2, and 3), except in the case of such students who, having attained a high standing in their Medical School work, desire to devote their entire fourth year to one subject of study. To such students, on the recommendation of a Department head, permission to devote the entire fourth year to one subject of study may be granted by vote of the Administrative Board. All students are advised to elect the course of correlative exercises offered in April and May.

The electives of the fourth year are given as half-courses, quarter-courses, and full courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

The final choice of electives must be left at the Dean's office on or before June 1. *No changes in electives will be allowed after the final assignments are made*, except that when a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

No student may select a fourth-year elective, covering a subject still owing in the work of the first three years, without the consent of the head of the Department in writing.

FINAL COURSE OF CORRELATIVE EXERCISES

(WHOLE COURSE)

In the last two months will be offered a general course of correlated lectures, demonstrations, and exercises, given in large part by the senior teachers in the School, which shall have for their object the summing up of the various subjects, the presentation of principles, and the relation of the various branches to each other. These exercises will be given to the whole class and will be both clinical and didactic.

This course will occupy both mornings and afternoons, with intervening periods to be devoted to individual study, and will be given at the different hospitals and at the Medical School. The following subjects, among others, will be considered from the combined view-points of different departments: Gastro-intestinal diseases; Syphilis; Renal disease; Infections, etc. A detailed announcement and schedule of exercises will be issued prior to the commencement of the course.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

ANATOMY.

[Under this Heading are included the Courses in Anatomy, Comparative Anatomy, Embryology, and Histology.]

Anatomy 1. Assistant Professor CHEEVER. Half-courses, afternoons, October and November, February and March.

This is a course in general, applied and surgical anatomy designed to emphasize and explain such parts of general anatomy as are of practical importance. Less important details are studied briefly or omitted altogether, according to their deserts, but ample opportunity is given to the student who desires it to review the chief facts of general anatomy or to pay especial attention to regions in which he is interested.

Instruction is by demonstrations, dissection, the study of frozen sections, and specimens and informal quizzes. The greatest importance is attached to the verification by the student in his own dissection of the facts presented by the instructor.

To enable the course to be satisfactorily adjusted to courses in other departments, a limited number of students may be permitted, on consultation with the instructor, to take one month with the first section and the other month with the second section.

Note.—No one can take this course who has not passed his first and second-year anatomy.

Anatomy 2. Anatomy of Higher Vertebrates. Whole course, first half-year, at hours to be arranged with the instructors.

The object of this course is to give the student an exact knowledge of the anatomy of a few mammals and birds as a foundation for research in Anatomy and Embryology, or for experimental work in Physiology or Pathology.

A small number of mammals, including a carnivore, rodent, and ungulate, and one or two birds will be studied. Each student will be required to make thorough dissections of each animal and to prepare sections of the most important organs. There will be lectures upon the general principles of comparative anatomy.

College courses in the morphology of animals, especially of vertebrates are a desirable preparation for this work.

Anatomy 3. Advanced Vertebrate Embryology. Assistant Professor LEWIS. Whole course, half-days for four months, or all day for two months, second half-year.

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

In this course sixteen hours per week (at times chosen by the student) are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction, will be required.

The *Manual of Human Embryology*, edited by Keibel and Mall, will be used as a text-book and original publications will be consulted. At the discretion of the instructor students may have access to the extensive embryological collection and to the collection of models, many of which were made in this laboratory.

Anatomy 4. Advanced Histology. Assistant Professor BREMER. Whole course, second half-year, at hours to be arranged with the instructor.

This course is intended to supplement the course in the Anatomy of Higher Vertebrates. The genesis as well as the adult histology of the various parts and organs is studied, and special stress is laid on their differences, developmental and structural, in the animals chiefly used in experimental medicine and animal economics. Students will also be required to master the principal technical methods used in Histology.

Anatomy 5. Half-course, afternoons, October and November. Structure and development of the eye, ear, and nasopharynx.

Anatomy 6. Half-course, afternoons, October and November. Structure and development of the urogenital system.

Anatomy 7. Half-course, afternoons, October and November. Development and histology of the nervous system.

PHYSIOLOGY.

Physiology 1. Half-courses, forenoons, afternoons, or all day, first half-year; afternoons, second half-year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to

work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Following are some suggestions for research which may readily be conducted in the Laboratory:—

Quantitative studies of human sensory and motor thresholds under various conditions, including the effects of stimulants and narcotics; the effects of toxins and poisons on the nervous system in experimental animals; the excitability of the "centers" of the medulla under various conditions. Studies in the physiology of the central nervous system. Studies of problems in the movements of the stomach and intestines, and in the activities of glands of internal secretions.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, ear, and upper respiratory tract. Afternoons, except Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons, afternoons, or all day, February and March.

These electives will be of five kinds, including (a) instruction in methods of diagnosis, depending upon bacteriological procedures; (b) instruction in methods of bacteriological diagnosis in use in health board laboratories, including the examination of waters and soils; (c) instruction in methods of opsonic-index work, with practical application; (d) special studies of spirochaetes and trypanosomes (open during both the first and second half-years, but should be taken for at least two months); (e) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

Note. — Students are advised not to take all-day courses in this subject. Under special conditions, electives begun before may be continued through April and May.

PATHOLOGY.

Pathology 1. Professor F. B. MALLORY. Half-courses, all day or forenoons, throughout the year.

This course is given in the pathological laboratory of the Boston City Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Pathology 2. Assistant Professor J. H. WRIGHT. Half-courses, all day, December, January, February and March.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Each course limited to four men, and will not be given as quarter-courses for two months.

Pathology 3. Half-courses, mornings or afternoons, second half-year.

This course is given in the laboratory of pathology, H.M.S., and is open to men acceptable to the head of the department who wish to take up research work in pathological anatomy or in experimental pathology. The problems will be arranged by consultation between students and the head of the department. Not more than two men will be received in any one course.

Pathology 4. Professor W. T. COUNCILMAN and Instructor.

This course will consist in the general work of the Pathological Laboratory of the Peter Bent Brigham Hospital, emphasis being placed upon the inter-relation of clinical and pathological work. Two students of the fourth-year class will be taken into the laboratory from October first to February first, these devoting all their time to the work. From February first two students will be received for periods of not less than two months.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microorganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Research. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

NEUROPATHOLOGY.

Neuropathology 1. Half-courses, forenoons, afternoons, or all day, throughout the year, preferably the second half-year.

The case-method is followed. The report of a selected case will be worked up by the student (as if for publication), based upon the personal employment of approved neuropathological methods.

Limited to two during a given month. Consultation with the instructor in advance will secure the choice of a case in line with the student's later special work.

Neuropathology 2. Half-courses, forenoons, afternoons, or all day, throughout the year.

Clinico-pathological methods in neurology and psychiatry and allied problems of internal medicine and surgery. Students taking this course for several months may, with the consent of the authorities, serve as clinical clerks or laboratory externes in the Psychopathic Hospital or, under special conditions, in other State institutions. Students will be permitted to attend staff conferences at the institutions where their work is carried on. They may be required to submit reports or theses concerning observations made.

The clerkships and externships are limited to two in a given month. The instructor should be consulted in advance.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM.

A voluntary conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry and for graduate students taking allied courses has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by students.

PREVENTIVE MEDICINE AND HYGIENE.

Preventive Medicine and Hygiene 1. Half-course, afternoons, February, and March.

This course will consist of laboratory work, sanitary excursions, or special research. The laboratory instruction will comprise analysis of air, soil, water, milk, and disinfectants.

Each course is limited to ten men. Students must see the instructor in charge before enrolling in this course. Longer courses in research by arrangement.

PHARMACOLOGY.

Pharmacology 1. Quarter-courses, forenoons, January and second half-year.

The work in this course will consist in the repetition of important experiments, the reading of selected original papers, and the preparation of reports; opportunity will be given for both experimental and chemical work.

MEDICINE.

Medicine 1. Full courses, all day, throughout the year.

This work will be given at the Massachusetts General Hospital. Each half-course will be limited to fourteen students. Students will serve as clinical clerks in the wards of the hospital and will have opportunity to systematically study the patients. Work in the wards will be supplemented by work in the Out-patient Department. Ample facilities will be furnished for the laboratory investigation of the patients. This course will be given under the supervision of Professor EDSALL and Assistant Professor CABOT. The courses will be given for two months each continuously, beginning October 1st, December 1st, February 1st, and April 1st. Each student electing the course must take it for at least two consecutive months unless he has already had a course in Medicine 2 or 3, in which case he may take one or more further months in this course.

Medicine 2. Full courses, all day, throughout the year, except April and May.

This work will be given at the Peter Bent Brigham Hospital. Each half-course will be limited to ten students. Students will serve as clinical clerks in the wards of the Hospital and will have opportunity to study systematically the patients. Work in the wards will be supplemented by work in the Out-patient Department. Ample facilities will be furnished for laboratory investigation of patients. This course will be given under the supervision of Professor Christian and Dr. Frothingham. The courses will be given for two months each, beginning October 1st, December 1st, and February 1st. Each student electing the course must take it for at least two consecutive months unless he has already had a course in Medicine 1 or 3, in which case he may take one or more additional months in this course.

Medicine 3. Full courses, all day, throughout the year, except April and May.

This work will be given at the Boston City Hospital. Each half-course will be limited to eight students. Students will serve as clinical clerks in the wards of the Hospital and have opportunity to study systematically the patients. Work in the wards will be supplemented by work in the Out-Patient Department. Facilities will be furnished for laboratory investigation of patients.

The courses will be given under the supervision of Professor SEARS and Assistant Professor JOSLIN. The courses will be given for two months each, beginning October 1st, December 1st, and February 1st. Each student electing the course must take it for at least two consecutive months, unless he has already had a course in Medicine 1 or 2, in which case each student may take one or more additional months in this course.

Medicine 4. Half-courses, forenoons, in December and January, February and March.

This work will be given at the Massachusetts General Hospital. Each half-course will be limited to four students. Only students who have completed courses in Medicine 1, 2, or 3 will be eligible. The work will consist of the study of cardiac cases by means of various graphic methods, with discussion of cardiac disease in relation to information yielded by the application to individual cases of such graphic methods of study. This course will be given by Dr. J. H. PRATT.

TROPICAL MEDICINE

Tropical Medicine 1. General Course in Tropical Medicine. Quarter-course, mornings, February.

Provided arrangements for clinical work in tropical diseases are completed by that time, this course will consist of lectures, laboratory work, and bedside demonstrations upon as many of the important tropical diseases as it is possible to consider in the time allotted to the course.

A course in Helminthology may be obtained by special arrangement.

Tropical Medicine 2. Tropical Entomology. Quarter-course, afternoons, February.

This course will include general lectures on the structure and classification of the Arthropoda, followed by a more detailed account of the Arthropoda known to be concerned and likely to be concerned in the transmission of human and animal diseases or in the inflictions of local injuries and physiological disturbances.

Laboratory work and demonstrations will also constitute an important feature and will provide, as far as is possible during the time allotted, for training in the dissection of insects, in the principal methods of studying their life histories and habits, and in their identification by means of dichotomic tables and from technical descriptions.

Tropical Medicine 3. Tropical Protozoölogy. Quarter-course, mornings, November.

The course in Protozoölogy will include a general discussion of the morphology and life history of the more important human protozoan parasites, such as the amoebae, flagellata (trypanosomes, the parasites of kala azar and oriental sore), sporozoa (malarial parasites) and ciliata. Their relations to their definitive and to intermediate hosts will also be discussed, together with phenomena of immunity. Methods for the cultivation of certain parasites and suitable procedures for collecting, staining, and mounting will be discussed as far as possible in the time allotted.

This course will not be given to less than six students.

Tropical Medicine 4. Tropical Pathology. Quarter-course, afternoons, November.

This course will include the study of the macroscopic and histological lesions of as many of the important tropical diseases as it is practicable to consider in the time allotted to the subject.

This course will not be given to less than six students.

Tropical Medicine 5. Tropical Bacteriology. Quarter-course, afternoons, January.

This course will include the identification of the etiological factor and the diagnosis of the infection by laboratory methods, such as cultures, serum reactions, and the inoculation of animals in as many of the

important tropical diseases as the time allotted to the subject will allow for.

This course will not be given to less than six students.

Tropical Medicine 6. Clinical Laboratory Work in Tropical Diseases.
Quarter-course, afternoons, April.

This course will be practical and will cover methods of obtaining and the technic of examination of materials from the more important tropical infections where a diagnosis may be made or aided by the microscope.

This course will not be given to less than six students.

ROENTGENOLOGY

Roentgenology 1. Half-courses, mornings, throughout the year, except April and May.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 8.30 to 12 at the Massachusetts General Hospital and Peter Bent Brigham Hospital, Drs. WALTER J. DODD and ALFRED LUGER.

PEDIATRICS.

Pediatrics 1. Half-courses, all day, throughout the year.

The work will consist of instruction in the wards and out-patient departments of the Children's Hospital, of the Infants' Hospital, of the Children's Department of the Massachusetts General Hospital, in the contagious wards of the South Department of the Boston City Hospital, at the Children's Tubercular clinic of the Burroughs Place Dispensary, at the Massachusetts Babies' Hospital, and in the Children's wards and out-patient department of the Boston Dispensary. The students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be taken up with teaching in the various wards and out-patient departments. Two lectures on the significance of the ear in early life will be given in the wards of the Infants' Hospital. Especial instruction will be given at the Massachusetts Babies' Hospital in the examination and preparation of milk modifications in connection with substitute feeding, and here instruction will also be given in connection with the subject of wet nurses.

One afternoon in each week will be spent at the South Department. Here instruction in general Pediatrics as connected with contagious diseases will be demonstrated, and whenever possible the technic of intubation will be shown.

One afternoon in each week will be devoted to lectures on Preventive Pediatrics at the Infants' Hospital.

Each student will have cases assigned to him on two afternoons of each week, when in the early part of the afternoon instruction in physical examination will be given by the various instructors, and in the latter part of the afternoon these cases will be discussed with one of the senior members of the department. Instruction will also be given in the laboratory of the Children's Hospital in clinical work connected with lumbar puncture and with the examination of the spinal fluid, blood, and urine.

Practical instruction will be given by means of Roentgen plates in the normal development of early life and in the more important diseased conditions. The class will be taken to a model farm, where everything practical pertaining to the milk supply for infants and young children will be taught. Practical instruction will also be given in a research milk laboratory in the writing of prescriptions and in the routine of laboratory work.

The examination will be an oral one, held by the Professor of Pediatrics.

SURGERY.

The electives offered by the Department of Surgery consist of half-courses (occupying the whole day for one month) and quarter-courses (either mornings or afternoons for one month). They are so arranged that

1	2	3	4	5	6
All day. 1 month. P.B.B.H. Dresser. Practical Surgery. Oct. to May.	All day 1 month. B.C.H. (a) Clinical and Labora- tory. Dr. Nichols (b) Dresser Service. B.C.H. (c) Dresser Service. Relief Station. Oct. to May.	All day. 1 month. M.G.H. Dresser. Practical Surgery. Oct. to May.	Afternoons. 1 month. Children's Hospital. General Surgical Service. Dresser. Oct. to March.	Forenoons. 1 month. B.C.H. G. U. Sur- gery. Thorndike. Oct. to March.	Forenoons. 1 month. M.G.H. G. U. Sur- gery. H. Cabot. Oct. to March.
Half- course.	Half- course.	Half- course.	Quarter- course.	Quarter- course.	Quarter- course.

they may be themselves combined in different groups or taken in combination with quarter-courses offered by other departments. No student will be permitted to take more than four half-courses in surgery without special permission of the head of the department.

Surgery 1. Clinical Clerk Service at the Brigham Hospital. Half-courses, all day, for one month, throughout the year. Peter Bent Brigham Hospital. Dr. HARVEY CUSHING.

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to six students.

Surgery 2. Clinical Work at the Boston City Hospital.

(a) Clinical and laboratory work, half-courses, all day, except Saturday and Sunday, for one month—October to April. Associate Professor E. H. NICHOLS and Dr. H. B. LODER. Boston City Hospital and Laboratory of Surgical Pathology. Includes work at the Boston City Hospital mornings, and laboratory work at the Harvard Medical School afternoons.

(b) Dresser's Service at the Boston City Hospital, half-courses, under the direction of Assistant Professor J. B. BLAKE, all day, for a month, throughout the year, under hospital administration. (c) Dresser's Service at the Haymarket Square Relief Station, half-courses, all day, for one month, throughout the year, under the direction of Assistant Professor J. B. BLAKE, under hospital administration.

Surgery 3. Clinical Clerk Service at the Massachusetts General Hospital. Half-courses, all day, for one month, throughout the year. Massachusetts General Hospital. Associate Professor C. A. PORTER and Dr. C. L. SCUDDER.

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to four students.

Surgery 4. Clinical Clerk Service at the Children's Hospital. Quarter-course, afternoons, for one month, October to March, inclusive. Children's Hospital. General Surgery. Dr. JAMES S. STONE.*

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to four students.

* This course can be taken in conjunction with *Orthopedic Surgery 2*, mornings for one month, to make a full half-course of practical dresser service at the Children's Hospital. In this way the student's whole day for a month will be spent at the Children's Hospital.

Surgery 5. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, October to March, inclusive. Boston City Hospital. Dr. PAUL THORNDIKE.

Instruction will consist of ward work, taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases and seeing the end results. Conferences with the students will be held from time to time.

Surgery 6. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, October to March, inclusive. Dr. HUGH CABOT. Massachusetts General Hospital.

The student will be assigned as assistant in the clinic and will take part in the routine work, case-taking, examination of patients, diagnosis and treatment. Operations and the after-care of major operative cases will be followed in the wards. Instruction will be given in cystoscopy and in laboratory methods of diagnosis.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Quarter-courses, afternoons, October, December, February, and April.

The fourth-year elective course is planned to continue the third-year required course, and is comprehensive in character. The exercises are clinical, and are given in the orthopedic clinics and wards of the Children's Hospital and of the Massachusetts General Hospital. The instruction is given daily each afternoon in the week, and is so arranged that opportunities are given for the examination of cases, with systematic note taking, combined with instruction successively in symptoms, diagnosis, the principles and details of treatment, with instruction in the common operations of orthopedic surgery as opportunity offers.

Each course is limited to eight men.

Orthopedic Surgery 2. Quarter-courses, mornings, from October to April inclusive.

This course is offered in the wards of the Children's Hospital, and in the course the student will serve as dresser and assistant, having an opportunity to make the regular visits, to examine and follow the course of operative and non-operative cases, to receive instruction in diagnosis and treatment, to be present at operations, and to receive instruction in the use of plaster of paris and apparatus. The course will occupy the entire morning. This course may be taken in connection with the course on the surgery of children (Surgery 4), the two together counting as a half-

course. In this way the student's whole day for a month will be spent at the Children's Hospital.

Each course is limited to two men.

OBSTETRICS AND GYNAECOLOGY.

Obstetrics and Gynaecology 1. Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. He will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practice the various operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor GREEN (Oct. to Jan.) and Assistant Professor NEWELL (Feb. to May), assisted by Drs. YOUNG, MASON, and R. M. GREEN, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, and by Professor GRAVES, assisted by Dr. HUTCHINS, at the Free Hospital for Women, Brookline. These clinics afford ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be required to study and report on pathological specimens removed by operation, under the supervision of Professor MALLORY or Professor GRAVES.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

DERMATOLOGY AND SYPHILIS.

Dermatology 1. Quarter-courses, forenoons, November, January and March.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin. Students electing Course 1 or 2 are strongly recommended to elect Course 3.

Dermatology 2. Quarter-courses, forenoons, November, January, and March.

The work in this course will be the same as in Course 1, with the exception that it extends over one month instead of two.

Dermatology 3. Quarter-course, afternoons, in January or in February, but not in both months.

This course consists of microscopical work and is given on five afternoons a week at the Harvard Medical School. Students electing this course will be trained in the histological study of the commoner diseases of the skin.

Syphilis. Quarter-courses, forenoons, October and November.

Instruction in clinical syphilis will be given daily at the Massachusetts General Hospital.

NEUROLOGY.

Neurology 1. Half-courses, forenoons, except April and May.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

- (1) Daily informal conferences on neurological topics.
- (2) History-taking, and personal examinations of patients at the out-patient department of the Massachusetts General Hospital.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.

In the final marking much account will be taken of the daily practical work of the student.

Neurology 2. Quarter-courses, forenoons, except April and May.

Instruction in these courses will be similar to that of *Neurology 1*, except that it will continue for one month instead of two. The instruction will be given at the Massachusetts General Hospital.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM.

A voluntary conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry and for graduate students taking allied courses has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by the students.

Psychiatry 1. Half-courses, forenoons, or all day, throughout the year.

A clinical course in which, by permission of the authorities, the wards and laboratories of the Psychopathic Hospital may be used and the daily staff conferences attended. In addition to a complete representation of mental diseases, there is much material of a neurological and general medical interest, so that students are advised to take the work later rather than earlier in the year. Under certain circumstances students taking the course for several months may be appointed to internships by the hospital authorities.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM

A voluntary weekly conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry, and for graduate students taking allied courses has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by students.

OPHTHALMOLOGY.

Ophthalmology 1. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations, with opportunity to witness their exemplification in the operative work of the hospital.

Ophthalmology 2. Quarter-course, forenoons, in February.

This course will be devoted to instruction in the use of the ophthalmoscope.

OTOLOGY.

Otology 1. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to clinical instruction. Each course limited to three men.

Otology 2. Otoscopy and Diagnosis. Dr. PHILIP HAMMOND and assistant. Quarter-courses, forenoons, February and March.

This course will be given at the Massachusetts Charitable Eye and Ear Infirmary. The student will be instructed in the objective examination of the ear, in making hearing tests and in the determination of disturbances of equilibration. He will be given an opportunity to make diagnoses in a great variety of cases. Each course limited to three men.

Otology 3. Histology and Pathology of the Ear. Dr. H. P. CAHILL. Quarter-course, mornings in January.

This course will be given at the Medical School. Instruction will consist of directed reading, illustrated by specimens, and in laboratory work under the personal supervision of the instructor.

Each course limited to three men.

LARYNGOLOGY.

Laryngology 1. Quarter-courses, forenoons, October, November, December, and January. Massachusetts General Hospital.

These courses are chiefly clinical in character; but in addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Each course limited to four and preference will be given to men taking the course for two months.

Laryngology 2. Drs. R. A. COFFIN and J. H. BLODGETT. Quarter-courses, forenoons, February, March, and April. Boston City Hospital.

These courses are clinical and include both ward and out-patient service in the Department for Diseases of the Nose, Throat, and Ear.

Each course limited to two and preference will be given to men taking the course for two months.

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8-10			<i>October and November.</i> Anatomy. Lecture or Demonstrations. <i>December and January.</i> Histology and Embryology. Lecture.			<i>October to January.</i> Lecture.
10-1			<i>October and November.</i> Anatomy. Dissection. <i>December and January.</i> Histology and Embryology. Laboratory.			<i>October to January.</i> Examinations or Laboratory.
2-3			<i>October and November.</i> Histology and Embryology. Lecture. <i>December and January.</i> Anatomy. Lecture or Demonstrations.			
3-6			<i>October and November.</i> Histology and Embryology. Laboratory. <i>December and January.</i> Anatomy. Dissection.			

FIRST YEAR. — Second Half-Year

PHYSIOLOGY. *February*

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-1			Laboratory Experiments.			
			<i>March, April, May.</i>			
9-10			Lecture or Demonstration.			
10-12.15			Laboratory Experiments.			
12.15 -1			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.		Laboratory.	

SECOND YEAR. — First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.		JANUARY.
9-12	Pathology. Laboratory.	1 week. Pathology. Laboratory. Daily.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory. E. E. Tyzzer. Daily.	9-10	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				9-12	Tuesday, Thursday, and Saturday.
				10.30-12	Monday, Wednesday, and Friday. Pathology. Laboratory.
12-1		Pathology. Lectures. Daily.		12-1	Pathology. Lectures. Daily.
2-3	Bacteriology. Lectures. Daily except Saturday.		Neuropathology. Daily except Saturday. Lectures and Laboratory. Southard.		Surgical Pathology. Nichols. Surgery. Cushing and assistants.
3-5.30	Bacteriology. Laboratory. Daily except Saturday.				

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	Medicine M. G. H. Edsall	Neurology M. G. H. Taylor	Surgery B. C. H.	Dermatology M. G. H. White	Surgery M. G. H.	Medicine B. C. H. Sears
10-12	Section Work Anatomy, Medicine, Surgery See Section Schedules					
1-2	Clinical Pathology Hewes Bldg. D	Pharmacology Hunt Bldg. E	Clinical Pathology Hewes Bldg. D	Pharmacology Feb., March, April Hunt Bldg. E	Clinical Pathology Hewes Bldg. D	
2-3		Hygiene Rosenau Bldg. E		Hygiene Rosenau Bldg. E		
3-4	Pharmacology * Hunt Bldg. E	Medicine Christian Bldg. A, Room 201	Pharmacology * Hunt Bldg. E	Obstetrics Green Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	
4-5	Hygiene * Rosenau Bldg. E	Surgery Bldg. A Room 201	Hygiene * Rosenau Bldg. E	Surgery. Bldg. A, Room 201	Pharmacology May only Hunt Bldg. E	

* Half the class.

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12						
	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine M. G. H., Edsall and B. C. H., Sears	Pediatrics Children's Hosp. Morse	Syphilis <i>Sept. 29 to Nov. 23</i> M. G. H. Post. Neurology <i>Nov. 23 to Dec. 31</i> M. G. H. <i>Jan.</i> Psychopathic
or 1.30 -2.30	Luncheon Period					
2.30- 3.30	Obstetrics Green Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	Gynaecology and Otology on alternate weeks Bldg. A, Room 207	Obstetrics Green Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	
3.30- 4.30	Surgery Bldg. A, Room 201	Ophthalmology and Laryngology on alternate weeks Bldg. A, Room 207	Pediatrics Bldg. A, Room 201	Surgery Bldg. A, Room 201	Clinico-pathological Demonstration Bldg. D	
4.30- 5.30						

THIRD YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine B. C. H., Sears and M. G. H., Edsall	Pediatrics Children's Hosp. Morse	Neurology and Psychiatry <i>Feb., Mar., Apr., Psychopathic May</i> M. G. H.
1 or 1.30 to 2.30	Luncheon Period					
2.30- 3.30	Obstetrics Bldg. A, Room 201	Medicine Cabot Bldg. A, Room 207	Obstetrics Feb.-Mar. Medicine Sears April-May Bldg. A, Room 201	Medicine Cabot Bldg. A, Room 207	Surgery Bldg. D	
3.30- 4.30	Surgery Bldg. A, Room 201	Pediatrics Bldg. A, Room 207	Orthopedic Surgery and Syphilis alternate weeks Bldg. A, Room 201	Dermatology and Psychiatry alternate weeks Bldg. A, Room 207	Clinico-Pathological Demonstration Bldg. D	
4.30- 5.30						

DEGREES

ON FEBRUARY 27, 1914, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

George Hayward Binney, Jr., A.B. 1908.

Jacob Baldwin Bruce, Jr., S.B. 1908.

Ernest Granville Crabtree, PH.B. (*Wooster Univ.*) 1906.

James Harmount Long, A.B. (*Ohio Wesleyan Univ.*) 1904, A.M. (*ibid.*) 1907.

John Otis Garfield Niles, A.B. 1905.

Prodromos Nicholas Papas.

M.D. (*Out of Course*)

Norman Brown Cole, A.B. 1909, as of the class of 1913.

Alson Raphael Kilgore, S.B. (*Univ. of California*) 1909, *cum laude*, as of the class of 1913.

DR.P.H.

Martin Russ Edwards, M.D. 1908.

Thesis, "The Bacteriological Standardization of Disinfectants, with Especial Reference to the Presence of Organic Matter."

ON COMMENCEMENT DAY, JUNE 18, 1914, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

Kenneth Field Albee, PH.B. (*Brown Univ.*) 1910.

Benjamin Harrison Alton, S.B. (*So. Dakota State Coll.*) 1908, S.M. (*ibid.*) 1910.

Archibald Hildreth Beard, A.B. (*Univ. of Kansas*) 1910.

David Lawrence Belding, A.B. (*Williams Coll.*) 1905, M.D. (*Boston Univ. School of Medicine*) 1913.

Marcellus Bronk, A.B. (*Cornell Univ.*) 1910.

Herbert Rutherford Brown, S.B. (*Univ. of Rochester*) 1901.

Ivan Roy Burket, A.B. (*Univ. of Kansas*) 1910, A.M. (*ibid.*) 1911.

Benjamin Prescott Burpee, A.B. (*Dartmouth Coll.*) 1909.

Austin Walter Cheever, A.B. 1910.

Joseph Powitzer Cohen, A.B. 1909.

Clay Crawford, A.B. (*Yale Univ.*) 1909.

Jeremiah John Donovan, A.B. (*Boston Coll.*) 1900.

William James Fay, A.B. (*Clark Univ.*) 1910.

- Miguel Joaquin Fernández, A.B. (*Colegio Pinillos, Colombia*) 1907.
 Carl Hernfrid Fornell, A.B. 1910.
 Thomas Albert Foster, A.B. (*Dartmouth Coll.*) 1910.
 Harold Inman Gosline, A.B. 1909.
 Irving Van Vliet Grannis, S.B. (*Univ. of Wisconsin*) 1912.
 Hyman Green, A.B. 1911.
 John Halliday, A.B. 1899.
 Harold Valmore Hyde, S.B. (*Dartmouth Coll.*) 1910.
 Peirce Henry Leavitt, S.B. 1910.
 Clarence William Lieb, A.B. (*Colorado Coll.*) 1908, A.M. (*ibid.*) 1909.
 Laurence Joseph Louis, Jr., A.B. (*Holy Cross Coll.*) 1910.
 Israel Lurier, A.B. (*Clark Univ.*) 1910.
 Henry Britt Moor, S.B. (*Colby Coll.*) 1910.
 Wayland Augustus Morrison, A.B. (*Leland Stanford Jr. Univ.*) 1910.
 John Henry Morrissey, Jr., A.B. (*Brown Univ.*) 1910.
 Way Sung New, A.B. (*St. John's Coll.*) 1910.
 Richard Augustine Rochford, A.B. (*Holy Cross Coll.*) 1910.
 Roger William Schofield, A.B. (*Clark Univ.*) 1910.
 Alfred Theodore Shohl, A.B. 1910.
 Marius Nygaard Smith-Petersen, S.B. (*Univ. of Wisconsin*) 1910.
 James Leavitt Stoddard, A.B. 1910.
 Carl Frithiof Vernlund, S.B. (*So. Dakota State Coll.*) 1909.
 Paul Withington, A.B. 1909.

M.D. *cum Laude*

- George Warren Bachman, A.B. 1908.
 Carl Alfred Lanning Binger, A.B. 1910.
 Heiman Caro, A.B. 1911 (1910).
 Stanley Cobb, A.B. 1910.
 Stephen Aratas Cobb, Jr., A.B. (*Bates Coll.*) 1909.
 Ward Hance Cook, A.B. (*Univ. of Kansas*) 1909, A.M. (*ibid.*) 1910.
 James Johnson Durrett, S.B. (*Univ. of Alabama*) 1908, S.M. (*ibid.*) 1909,
 PH.G. (*ibid.*) 1910.
 Cyrus Hartwell Fiske, A.B. (*Univ. of Minnesota*) 1910.
 Horace Gray, A.B. 1909.
 Alsoberry Kaumu Hanchett, A.B. 1911 (1910).
 Frederick Thayer Hill, S.B. (*Colby Coll.*) 1910.
 Edwin Partridge Lehman, A.B. (*Williams Coll.*) 1910.
 Samuel Albert Levine, A.B. 1911.
 Lawrence Kirby Lunt, A.B. 1909.
 John Alfred Parsons Millet, A.B. 1910.
 William Richard Ohler, S.B. 1910.

- George Byron Packard, Jr., A.B. (*Univ. of Colorado*) 1910.
Henry Barber Richardson, A.B. 1910.
Raymond Richmond Root, S.B. (*Dartmouth Coll.*) 1905.
Harry Caesar Solomon, S.B. (*Univ. of California*) 1910.
Wade Stanley Wright, S.B. (*Univ. of Pittsburgh*) 1910.

DR.P.H.

- James Persons Simonds, A.B. (*Baylor Univ.*) 1901, M.D. (*Rush Medical Coll.*) 1907.

Thesis: "Studies in *Bacillus Welchii*, with special Reference to Classification and to its Relation to Diarrhoea."

THE MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

Cumming, James Gordon, M.PH. (<i>Univ. of Wisconsin</i>)	
1903, M.D. (<i>ibid.</i>) 1913,	Ann Arbor, Mich.
Smillie, Wilson George, A.B. (<i>Colorado Coll.</i>) 1908, M.D.	
(<i>Harvard Univ.</i>) 1912,	Eaton, Colo.

FOURTH CLASS

Allen, Edward Bartlett, A.M. (<i>Brown Univ.</i>) 1911,	Centreville, R. I.
Allen, Walter Charles, S.B. (<i>Univ. of Rochester</i>) 1911,	Rochester, N. Y.
Amiral, Hiram Hygazon, A.B. (<i>Univ. of Rochester</i>) 1911,	Alameda, Cal.
Appleton, Paul, PH.B. (<i>Brown Univ.</i>) 1911,	Providence, R. I.
Babington, Vernon Edgar, A.B. (<i>Brown Univ.</i>) 1911,	Cranston, R. I.
Bloomer, Earl, A.B. (<i>Univ. of Missouri</i>) 1913,	St. Joseph, Mo.
Bock, Arlie Vernon, A.B. (<i>Upper Iowa Univ.</i>) 1910,	Dubuque, Ia.
Boller, Stanley, A.B. (<i>Univ. of Southern California</i>) 1911,	Los Angeles, Cal.
Bowes, Frank Arthur, A.B. (<i>Holy Cross Coll.</i>) 1910,	Waterbury, Conn.
Bridges, Edwin Stanley, A.B. (<i>Univ. of New Brunswick</i>)	
1908,	St. John, N. B.
Brown, George Percy, A.B. (<i>Yale Univ.</i>) 1911,	Barre
Brown, Harry Henderson, Jr., A.B. (<i>Univ. of Texas</i>) 1910,	Yoakum, Texas
Bumpus, Hermon Carey, Jr., PH.B. (<i>Brown Univ.</i>) 1912,	Madison, Wis.
Bunker, Henry Alden, Jr., A.B. 1910,	Brooklyn, N. Y.
Caldarone, Alfred Anthony, A.B. (<i>Holy Cross Coll.</i>) 1911,	Providence, R. I.
Christman, Robert Albert, PH.B. (<i>Lafayette Coll.</i>) 1911,	Kresgeville, Pa.
Clason, Freeman Pell, A.B. (<i>Bates Coll.</i>) 1911,	Gardiner, Me.
Cleaves, Edwin Nelson, A.B. 1911,	Medford
Cline, Samuel, S.B. 1911,	Roxbury
Cook, Edgar Charles, A.B. (<i>Lake Forest Coll.</i>) 1911,	Mendota, Ill.
Cummings, Edward Joseph, A.B. (<i>Boston Coll.</i>) 1911,	So. Boston
Curtin, John Francis, A.B. (<i>Holy Cross Coll.</i>) 1911,	Lawrence
Devine, Bernard Francis, A.B. 1911,	Nahant
Diehl, Oliver Roland, A.B. 1912,	Huntingdon Valley, Pa.
Dole, Kenneth Llewellyn, A.B. (<i>Leland Stanford Jr.</i>	
<i>Univ.</i>) 1912,	Jamaica Plain

- Donnell, Clyde Henry, A.B. (*Howard Univ.*) 1911, Greensboro, N. C.
 Downing, John Godwin, A.B. (*Boston Coll.*) 1911, So. Boston
 Durkin, Harry Anthony, A.B. (*Holy Cross Coll.*) 1911, Peoria, Ill.
 Dwinell, George Francis, A.B. (*Dartmouth Coll.*) 1911, Manchester, N. H.
 Edwards, Henry William, Jr., S.B. (*Univ. of Rochester*) 1911, Rochester, N. Y.
 Edwards, Sumner, A.B. (*Bowdoin Coll.*) 1910, Bethel, Me.
 Edwards, Walter Davis, A.B. (*Univ. of Rochester*) 1911, Rochester, N. Y.
 Fein, Harry, A.B. 1911, Boston
 Flagg, Charles Monroe, S.B. 1905, Cambridge
 Génèreux, Edmond Alfred, A.B. (*Holy Cross Coll.*) 1911, Webster
 Gibson, Arthur Collis, A.B. (*Bowdoin Coll.*) 1911, San Francisco, Cal.
 Gillespie, Norman Wilkinson, S.B. (*Tufts Coll.*) 1911, Dorchester
 Gillon, Charles Joseph Carroll, PH.B. (*Holy Cross Coll.*) 1911, Taunton
 Gilpatrick, Leon Southard, A.B. (*Colby Coll.*) 1909, Danforth, Me.
 Grabfield, Gustave Philip, A.B. (*Williams Coll.*) 1912, Cincinnati, O.
 Hankey, Daniel Clyde, A.B. (*Westminster Coll.*) 1909, Ford City, Pa.
 Hodgson, John Sprague, PH.B. (*Brown Univ.*) 1912 (1911), Esmond, R. I.
 Horan, Joseph Carrigan, A.B. (*Sacred Heart Coll.*) 1911, A.M. (*ibid.*) 1913, Denver, Colo.
 Hudson, Carl Bibb, A.B. 1912 (1911), Montgomery, Mo.
 Jackson, Arthur Morison, S.B. (*Dartmouth Coll.*) 1911, Everett
 Janney, James Craik, A.B. 1911, Wynnewood, Pa.
 Johnson, Odin James, A.B. (*Univ. of Minnesota*) 1911, Lyle, Minn.
 Kibby, Sydney Vernon, A.B. 1908 (1907), Chelsea
 King, Edward, A.B. (*Univ. of Georgia*) 1910, Atlanta, Ga.
 Lawler, John Charles, A.B. (*Holy Cross Coll.*) 1911, Bellows Falls, Vt.
 Lee, Edward Kerk, A.B. (*Loyola Coll.*) 1910, Perryman, Md.
 Lowrey, Lawson Gentry, A.B. (*Univ. of Missouri*) 1909, A.M. (*ibid.*) 1910, Excelsior Springs, Colo.
 McCaffrey, Jerome Joseph, A.B. (*Holy Cross Coll.*) 1911, Attleboro
 McGuire, Joseph Hoshal, A.B. (*Eureka Coll.*) 1911, Eureka, Ill.
 MacPherson, Donald John, S.B. (*Univ. of Rochester*) 1911, Palmyra, N. Y.
 McQuesten, Philip, A.B. (*Dartmouth Coll.*) 1911, Nashua, N. H.
 Mallory, Meredith, A.B. (*Univ. of Illinois*) 1911, Batavia, Ill.
 Meaker, Samuel Raynor, A.B. (*Princeton Univ.*) 1911, Carbondale, Pa.
 Montgomery, James Blaine, A.B. (*Dartmouth Coll.*) 1911, Boston
 Morriss, William Sarsfield, A.B. 1911, Fall River
 Murray, George Aloysius, A.B. (*Boston Coll.*) 1909, Dorchester
 Nigro, Michele, A.B. 1910 (1911), Revere
 Oslin, Joseph Edwin, A.B. (*Brown Univ.*) 1910, Boston

Packard, Fabyan, A.B. 1912,	Allston
Peck, Martin William, S.B. (<i>Dartmouth Coll.</i>) 1902,	Lynn
Perkins, William Albert, A.B. 1912,	Ogden, Utah
Plouffe, Bernard Louis, A.B. (<i>Holy Cross Coll.</i>) 1911,	Webster
Raia, Joseph Ernest, A.B. (<i>Brown Univ.</i>) 1911,	Providence, R. I.
Redden, William Rufus, A.B. (<i>Bates Coll.</i>) 1906,	Roxbury
Richardson, Ira Walter, A.B. (<i>Colby Coll.</i>) 1910,	Kennebunk, Me.
Sargent, Arthur Forrest, A.B. (<i>Dartmouth Coll.</i>) 1911,	Pittsfield, N. H.
Sharry, Charles Francis, A.B. 1910,	Boston
Sowles, Horace Kennedy, A.B. (<i>Clark Univ.</i>) 1910,	Barre, Vt.
Spruit, Charles Booth, A.B. (<i>Illinois Coll.</i>) 1908,	Jacksonville, Ill.
Stern, Neuton Samuel, A.B. 1912,	Memphis, Tenn.
Strauss, Arthur Edgar, S.B. 1912,	St. Louis, Mo.
Thaxter, Langdon Thom, A.B. (<i>Williams Coll.</i>) 1911,	Portland, Me.
Thomas, Harold, A.B. (<i>Acadia Coll.</i>) 1910,	Wollaston
Tucker, Cassell Clark, A.B. (<i>De Pauw Univ.</i>) 1911,	Greencastle, Ind.
Van Gorder, George Wilson, A.B. (<i>Williams Coll.</i>) 1911,	Pittsburgh, Pa.
Van Stone, Leonard Matthews, A.B. (<i>Colorado Coll.</i>) 1911,	Denver, Colo.
Woodward, Harry Whiting, A.B. (<i>Bowdoin Coll.</i>) 1910,	Colorado Springs, Colo.
Wright, Louis Tompkins, A.B. (<i>Clark Univ., Atlanta, Ga.</i>) 1911,	Atlanta, Ga.

THIRD CLASS

Aaronson, Jacob, A.B. 1912,	Chelsea
Barrow, William Hulbert, A.B. 1908,	Chelsea
Betteridge, Lawrence Augustine, A.B. 1912,	Boston
Bigelow, George Hoyt, A.B. 1913 (1912),	Framingham
Briggs, Maurice Taggart, A.B. 1912,	E. Lynn
Butler, Edmund John, A.B. (<i>Boston Coll.</i>) 1912,	Cambridge
Churchill, Kenneth, A.B. (<i>Bowdoin Coll.</i>) 1912,	Newtonville
Dillon, Edward Saunders, A.B. (<i>Princeton Univ.</i>) 1911,	Woodbury, N. J.
Fogg, Neil Augustus, A.B. (<i>Bowdoin Coll.</i>) 1913,	Freeport, Me.
Gilbert, John Joseph, A.B. (<i>Brown Univ.</i>) 1912,	Woonsocket, R. I.
Goethals, Thomas Rodman, A.B. 1912,	Culebra, C. Z., Panama
Golden, Ross, A.B. (<i>Cornell Coll.</i>) 1912,	Des Moines, Ia.
Grace, Clarence Milo, A.B. (<i>Washington State Univ.</i>) 1912,	Chillicothe, Mo.
Gregg, Alan, A.B. 1911,	Chestnut Hill
Gustafson, Paul, A.B. 1912,	Cambridge
Hamilton, John Homer, S.B. (<i>Oklahoma Agricultural and Mechanical Coll.</i>) 1910,	Stillwater, Okla.

- Harding, Edward, A.B. 1911, Boston
Harris, Carl Thorburn, S.B. (*Univ. of Rochester*) 1912, Spencerport, N. Y.
H'Doubler, Francis Todd, A.B. (*Univ. of Wisconsin*)
1907, Madison, Wis.
Hodgdon, Frank Wellington, Jr., A.B. 1911, Arlington
Houston, David Walker, Jr., A.B. (*Princeton Univ.*) 1912, Troy, N. Y.
Hurst, Benoni Price, A.B. (*Amherst Coll.*) 1912, Baltimore, Md.
Hussey, Earle Edward, A.B. (*St. Mary's Coll.*) 1911, A.M.
(*ibid.*) 1913, Wichita, Kan.
Hyman, Clarence Henry, S.B. (*Heidelberg Univ.*) 1911, Payne, O.
Koefod, Hilmar, S.B. (*Beloit Coll.*) 1911, Glenwood, Minn.
Lacey, Walter Hamer, A.B. 1912, Wollaston
Langmann, Alfred Gustav, A.B. 1912, New York, N. Y.
Lanman, Thomas Hinckley, A.B. 1912, Cambridge
Learned, Elmer Turell, A.B. (*Yale Univ.*) 1912, Fall River
Lowry, Franklin Patterson, S.B. 1912, Newton
Lyon, Arthur Bates, A.B. (*Amherst Coll.*) 1912, Brockton
McIntyre, John Archibald, S.B. (*Cornell Coll.*) 1912, Mt. Vernon, Ia.
Moffat, Barclay Wellington, A.B. 1912, Orange, N. J.
Morris, Samuel Leslie, Jr., S.B. (*Davidson Coll.*) 1911, Atlanta, Ga.
Nichols, Andrew, 3d, A.B. 1912, Hathorne
Nissen, Harry Archibald, A.B. (*Univ. of So. Dakota*)
1911, Vermillion, So. Dak.
Oberg, Frank Thorwald, A.B. (*Clark Univ.*) 1912, Worcester
Osgood, Howard, 2d, A.B. 1911, Cambridge
Parker, Frederic, Jr., A.B. 1913, Bedford
Peabody, Charles William, A.B. 1912, Malden
Putnam, James Jackson, Jr., A.B. 1912, Boston
Ragle, Benjamin Harrison, A.B. (*De Pauw Univ.*) 1912, Spencer, Ind.
Rapport, David Louis, A.B. 1912, Pittsburgh, Pa.
Redway, Lawrence David, A.B. 1912, Cincinnati, O.
Ricci, James Vincent, A.B. (*Brown Univ.*) 1913, Providence, R. I.
Roberts, Bertrand Earle, A.B. 1912, Newton Centre
Savage, Joseph Carr, A.B. (*Univ. of Colorado*) 1913, Denver, Colo.
Scholl, Albert John, Jr., A.B. (*Leland Stanford Jr. Univ.*)
1913, Los Angeles, Cal.
Settle, Howard Edwin, A.B. 1913 (1912), Berne, N. Y.
Stidger, Ivan Read, A.B. (*Allegheny Coll.*) 1911, Cameron, W. Va.
Taylor, John Houghton, A.B. 1913 (1912), Cambridge
Tully, George Loughlin, A.B. 1912, Milford
Vail, Harris Holmes, A.B. (*Yale Univ.*) 1912, Cincinnati, O.
Viets, Henry Rouse, Jr., S.B. (*Dartmouth Coll.*) 1912, Newton

Waite, John Herbert, s.B. (<i>Bucknell Univ.</i>) 1911,	Lock Haven, Pa.
Watt, George, s.B. (<i>Univ. of Michigan</i>) 1914,	Boston
Weld, Stanley Burnham, A.B. (<i>Dartmouth Coll.</i>) 1912,	Winchester
Wells, Ward Stanley, s.B. (<i>Grinnell Coll.</i>) 1909,	Nashua, Ia.
Wilbur, George Browning, s.B. 1912,	W. Newton
Withington, Paul Richmond, A.B. 1912,	Boston

SECOND CLASS

Adams, Frank Dennette, LITT.B. (<i>Princeton Univ.</i>) 1913,	Washington, D.C.
Adams, William Bradford, A.B. 1913,	Springfield
Ashton, Leslie Orrell, s.B. (<i>Dartmouth Coll.</i>) 1913,	Lawrence
Baker, Horace Mitchell, s.B. (<i>Mass. Agricultural Coll.</i>) 1912,	Selbyville, Del.
Belknap, Robert Willis, A.B. (<i>Bowdoin Coll.</i>) 1913,	Damariscotta, Me.
Berry, Francis Brown, A.B. 1914,	Providence, R. I.
Biascoechea, Diego Abraham, s.B. (<i>Univ. of Michigan</i>) 1914,	San Juan, P. R.
Brown, Frederick Ronald, A.B. (<i>McGill Univ.</i>) 1913,	Danville, Quebec, Can.
Buchanan, Edwin Porter, s.B. (<i>Princeton Univ.</i>) 1913,	Pittsburgh, Pa.
Buckman, Thomas Ellwood, A.B. 1912, A.M. 1914,	Cambridge
Bugbee, Edwin Percy, s.B. (<i>Tufts Coll.</i>) 1912,	Methuen
Busby, Eldon Durward, A.B. (<i>McGill Univ.</i>) 1913,	Ottawa, Ont., Can.
†Cassidy, Franklin Chester,	Medford
Cheney, Marshall Chipman, A.B. (<i>Univ. of California</i>) 1909,	Berkeley, Cal.
Chisholm, Lawrence Chesley, s.B. (<i>Dartmouth Coll.</i>) 1913,	Salem
Clifford, Randall, A.B. 1912,	New Bedford
Clifford, Wallace Alton, A.B. (<i>Bates Coll.</i>) 1908,	South Paris, Me.
Crile, Dennis Rider Wood, s.B. (<i>Univ. of Wisconsin</i>) 1914,	Roswell, N. M.
Cunningham, Thomas Donald, s.B. (<i>Dartmouth Coll.</i>) 1913,	Denver, Colo.
Dresel, Rudolph Ludwig, A.B. (<i>Univ. of California</i>) 1913,	San Francisco, Cal.
†Eaton, Harold Burney,	Frankfort a. M., Germany
Fellows, Albert Whittier, s.B. (<i>Dartmouth Coll.</i>) 1914,	Dorchester
Findley, Eldon Marshall, A.B. (<i>Univ. of Missouri</i>) 1914,	Graham, Mo.
Findley, William Meyer, A.B. (<i>Univ. of Missouri</i>) 1913,	Graham, Mo.
FitzGerald, Edmund Boyd, A.B. 1913,	Wollaston
Foley, John Arthur, A.B. 1911,	Dorchester

† Admitted on two years of college work.

- Goffin, Launcelot Curry, A.B. (*Univ. of Missouri*) 1914,
Richmond Beach, Wash.
- Gould, Adrian Gordon, PH.B. (*Brown Univ.*) 1913, Youngstown, O.
- Goulding, Arthur Melville, A.B. (*Univ. of Toronto*) 1910,
Toronto, Ont., Can.
- Gring, Ambrose Daniel, 2d, A.B. (*Yale Univ.*) 1912, Cambridge
- Hall, Francis Cooley, LITT.B. (*Princeton Univ.*) 1913, Brookline
- Hutchinson, Charles William, A.B. 1906, A.M. 1907, Framingham
- Hutchinson, Rollo Wilson, A.B. (*Dartmouth Coll.*) 1913, Milford, N. H.
- Isaacson, Abraham Samuel, A.B. (*Brown Univ.*) 1913, Malden
- Johnston, James Scott, A.B. (*Univ. of Michigan*) 1910,
A.M. (*ibid.*) 1911, Ithaca, N. Y.
- Klein, Armin, A.B. 1914, Chelsea
- Lurie, Moses Hyman, D.M.D. 1913, Roxbury
- Mabon, Thomas McCance, S.B. (*Princeton Univ.*) 1913, Pittsburgh, Pa.
- McCarthy, James Matthew, Jr., A.B. (*Holy Cross Coll.*)
1913, Woonsocket, R. I.
- MacGhee, Aaron Lawson, S.B. (*Colby Coll.*) 1913, Augusta, Me.
- Marshall, John Ross, A.B. 1913, Brookline
- Meysenbug, Ludo von, A.B. (*Washington and Lee Univ.*)
1913, New Orleans, La.
- Moloney, James Bowe, A.B. 1913, So. Boston
- Neal, Kemp Prather, A.B. (*Trinity Coll.*) 1913, Monroe, N. C.
- Nisbet, Douglas Heath, S.B. (*Davidson Coll.*) 1913, Charlotte, N. C.
- Norbury, Frank Garm, A.B. (*Illinois Coll.*) 1912, A.M.
(*Univ. of Illinois*) 1913, Springfield, Ill.
- †Oerting, Harry, St. Paul, Minn.
- Parkins, Leroy Edward, A.B. (*Simpson Coll.*) 1912, Knowlton, Ia.
- Parmenter, Derric Choate, A.B. 1913, Gloucester
- Paul, Benjamin Delos, S.B. (*Purdue Univ.*) 1912, Brookston, Ind.
- Pennell, Walter Johnson, A.B. (*Bates Coll.*) 1913, Auburn, Me.
- Persons, Carl Clough, A.B. (*Wesleyan Univ., Conn.*) 1913, Maynard
- Pratt, Aaron Paul, A.B. (*Clark Univ.*) 1913, So. Framingham
- †Shirley, John Newton, So. Duxbury
- †Strahlmann, Louis, San Diego, Cal.
- Surls, Joseph Kiddoo, A.B. (*Williams Coll.*) 1913, Reading, Pa.
- Thomasson, Aaron Hood, A.B. (*Lincoln Univ.*) 1896, Boston
- Thompson, Hartwell Greene, A.B. (*Yale Univ.*) 1913, Taftville, Conn.
- Townsend, De Wayne, A.B. (*Univ. of Wisconsin*)
1912, Oconomowoc, Wis.

† Admitted on two years of college work.

Wearn, Joseph Treloar, S.B. (<i>Davidson Coll.</i>) 1913,	Charlotte, N. C.
Welles, Edward Sawtelle, S.B. (<i>Iowa State Coll.</i>) 1913,	Los Angeles, Cal.
Wendell, Percy Langdon, A.B. 1913,	Jamaica Plain
Wetherell, Bryant Davis, A.B. (<i>Williams Coll.</i>) 1912,	Holyoke
White, Joseph Warren, A.B. 1913,	Roxbury
Wylde, Russell Arthur, A.B. (<i>Dartmouth Coll.</i>) 1912,	Lawrence
Young, William Bartholomew, A.B. 1913,	Rockland
Zovickian, Hovhannes, PH.B. (<i>Brown Univ.</i>) 1909, A.M. (<i>ibid.</i>) 1909,	Providence, R. I.

FIRST CLASS

Ames, Forrest Bertram, A.B. (<i>Univ. of Maine</i>) 1913,	Bangor, Me.
*Angevine, Robert Winsper (<i>Univ. of Rochester</i>),	Rochester, N. Y.
Atwater, Reginald Myers, A.B. (<i>Colorado Coll.</i>) 1914,	Colorado Springs, Colo.
Badger, Omar Perlie, A.B. (<i>Bowdoin Coll.</i>) 1914,	Skowhegan, Me.
Bell, Leo Pecci, A.B. (<i>Univ. of Missouri</i>) 1912,	Monroe City, Mo.
Blackway, Charles Everett, A.B. (<i>Brown Univ.</i>) 1914,	Fall River
Bullard, Carleton Wheeler, S.B. 1914,	So. Framingham
Burgess, Barry Hovey, A.B. (<i>Acadia Coll.</i>) 1912, A.M. (<i>Harvard Univ.</i>) 1914,	Sheffield Mills Station, N. S.
Burwell, Charles Sidney, Jr., A.B. (<i>Allegheny Coll.</i>) 1914,	Meadville, Pa.
Callanan, Francis Jervois, A.B. 1914,	Boston
†Callister, Alfred Cyril,	Salt Lake City, Utah
Cameron, Owen John, A.B. (<i>St. Francis Xavier's Coll.</i>) 1914,	Antigonish, N. S.
†Carroll, James William,	Cambridge
Chaffin, George Lawrence, A.B. (<i>Univ. of Utah</i>) 1914,	Farmington, Utah
Chapman, William Harden, A.B. 1913,	Boston
*Cohen, Hyman (<i>Harvard</i>),	Dorchester
Colby, Fletcher Hatch, S.B. (<i>Dartmouth Coll.</i>) 1914,	Allston
*Currier, Donald Estes (<i>Harvard</i>),	Wenham
Curtis, Robert Dudley, A.B. 1914,	Dorchester
Daland, Ernest Merrill, A.B. (<i>Brown Univ.</i>) 1912,	Wakefield
Drake, Wallace Horne, S.B. (<i>Dartmouth Coll.</i>) 1914,	No. Weymouth
Eastwood, William Raymond, PH.B. (<i>Brown Univ.</i>) 1913, A.M. (<i>ibid.</i>) 1914,	Providence, R. I.
Edgelow, Arthur Ford Geddes, A.B. (<i>Trinity Coll., Conn.</i>) 1914,	Cairo, N. Y.

* Has completed work for the Bachelor's degree.

† Admitted on two years of college work.

- Eisenberg, Adolph Martin, S.B. (*Mass. Institute of Technology*) 1912, A.M. (*Harvard Univ.*) 1914, Roxbury
 Ellis, Ralph Warner, A.B. (*Clark Univ.*) 1914, Worcester
 English, Hubert Morton, A.B. (*Univ. of Illinois*) 1914, Marshall, Ill.
 *Finkelstein, Harry Paul (*Harvard*), E. Boston
 Foster, William Harold, A.B. (*Boston Univ.*) 1914, Boston
 Freeman, Mervin, A.B. (*De Pauw Univ.*) 1913, Sullivan, Ind.
 Fremont-Smith, Maurice, A.B. 1914, Washington, D. C.
 †Frost, Morton Fletcher, Rumford, R. I.
 †Gabe, William Edwin, Indianapolis, Ind.
 Gabriels, Joseph Augustus, A.B. (*Holy Cross Coll.*) 1914, Watervliet, N. Y.
 Gallupe, Harold Quimby, S.B. (*Tufts Coll.*) 1911, Everett
 Goldman, Abe Milton, A.B. (*Univ. of Kansas*) 1914, Kansas City, Mo.
 Gray, Ellis Barksdale, A.B. (*Trinity Coll., N. C.*) 1914, Gray Court, S. C.
 Gunby, Paul Clark, A.B. 1914, Sherman, Tex.
 Harris, Francis Sterling, PH.B. (*Yale Univ.*) 1914, Cambridge
 Harris, Walter Callahan, A.B. (*Holy Cross Coll.*) 1914, Millbury
 Havens, Leon Clive, A.B. (*Colorado Coll.*) 1913, A.M. Colorado Springs, Colo.
 (*ibid.*) 1914,
 Henderson, Charles Smith, A.B. (*St. Francis Xavier's Coll.*) 1914, Parrisboro, N.S.
 *Hopkins, Frederick Sherman (*Harvard*), Springfield
 Howe, Glover Elbridge, S.B. (*Mass. Agricultural Coll.*) 1913, Marlborough
 Howes, Seth Francis Harrison, A.B. (*Colby Coll.*) 1914, Southborough
 Hun, Henry Hand, PH.B. (*Yale Univ.*) 1914, Albany, N. Y.
 Hunsberger, Harvey Samuel, A.B. (*Olivet Coll.*) 1909, A.M. (*ibid.*) 1911, Riverside, Cal.
 *Hyman, Albert Solomon (*Harvard*), Roxbury
 Johnson, George Grady, A.B. (*Trinity Coll., N. C.*) 1913, Durham, N. C.
 Johnson, Ralph Montgomery, A.B. (*Cornell Univ.*) 1914, Ogden, Utah
 Kebabjian, Hrant Setrag, A.B. (*Anatolia Coll.*) 1913, Angora, Turkey in Asia
 Kuder, Joseph Matthew, A.B. 1914, Lehighton, Pa.
 †Lincoln, James Rufus, Wareham
 Lord, Robert Mendon, A.B. (*Brown Univ.*) 1914, Providence, R. I.
 Lucas, Robert Theodore, A.B. (*Trinity Coll., N. C.*) 1914, Charlotte, N. C.
 McClellan, Reyburn, S.B. (*Princeton Univ.*) 1914, Xenia, O

* Has completed work in Harvard College for the Bachelor's degree.

† Admitted on two years of college work.

- McGowan, Daniel Joseph, Jr., A.B. (*Holy Cross Coll.*) 1913,
 McIntosh, Rustin, A.B. 1914,
 McKenzie, John Ernest, A.B. (*Wofford Coll.*) 1912,
 McLaughlin, Edward Aloysius, A.B. (*Brown Univ.*) 1914,
 †McNamara, Frank Patrick,
 Marvin, Harold Myers, A.B. (*Davidson Coll.*) 1914,
 Miller, Howard Stephen, S.B. (*Univ. of Pittsburgh*) 1912,
 †Millhoff, Clarence Dimmick,
 Milliken, Robert Addison, A.B. (*Princeton Univ.*) 1914,
 †Morrissey, Daniel Leo,
 Myers, Franklin Augustus, A.B. (*Lincoln Univ.*) 1913,
 O'Connor, Alfred Smith, A.B. (*Holy Cross Coll.*) 1914,
 O'Meara, John William, A.B. (*Holy Cross Coll.*) 1912,
 Parkhurst, Albert Elisha, A.B. (*Bowdoin Coll.*) 1913,
 Patterson, Russell Hugo, S.B. (*Univ. of Georgia*) 1914,
 †Rappleye, Willard Cole,
 Rieger, John Benjamin, PH.C. (*Univ. of Michigan*) 1906,
 S.B. (*ibid.*) 1907, S.M. (*George Washington Univ.*) 1914,
 *Rock, John Charles (*Harvard*),
 Rönne, George Emil, A.B. (*Brown Univ.*) 1914,
 Root, James Harold, PH.B. (*Yale Univ.*) 1914,
 *Rose, Julian (*Harvard*),
 Sattler, Robert Ray, A.B. (*Univ. of Michigan*) 1911,
 Schussler, Hermann, Jr., S.B. (*Univ. of California*) 1914,
 Scott, Arthur Carroll, Jr., A.B. (*Univ. of Texas*) 1914,
 †Seabury, Robert Brewster,
 Sefton, Wilfred, PH.B. (*Yale Univ.*) 1914,
 †Sheffield, William Cyrenus,
 Shields, James Burnett, S.B. (*Dartmouth Coll.*) 1914,
 *Shoenfield, Adolph (*Harvard*),
 †Sisson, Eugene Pardon, Jr.,
 *Smith, Judson Arthur (*Harvard*),
 *Stone, Eric,
 Street, Claudius Augustus, A.B. (*Colorado Coll.*) 1914,
 Sullivan, Edward Scanlon, A.B. 1914,
 Taylor, Norman Henry, A.B. (*Haverford Coll.*) 1913, A.M.
 (*Harvard Univ.*) 1914,
 Newport, R. I.
 New York, N. Y.
 Hamer, S. C.
 Providence, R. I.
 Fitchburg
 Jacksonville, Fla.
 Freedom, Pa.
 Cleveland, O.
 Indianapolis, Ind.
 Bristol, R. I.
 Brooklyn, N. Y.
 Worcester
 Jamaica Plain
 Presque Isle, Me.
 Athens, Ga.
 Menominee, Mich.
 Reading, Pa.
 Marlborough
 Providence, R. I.
 Waterbury, Conn.
 Brooklyn, N. Y.
 Cincinnati, O.
 San Francisco, Cal.
 Temple, Tex.
 New Haven, Conn.
 Auburn, N. Y.
 Providence, R. I.
 Boston
 Youngstown, O.
 Hamilton, N. Y.
 Hudson Falls, N. Y.
 New York, N. Y.
 Linville Falls, N. C.
 Concord, N. H.
 New York, N. Y.

* Has completed work in Harvard College for the Bachelor's degree.

† Admitted on two years of college work.

Thorne, Fred Sanborn, A.B. 1913,	Brookline
Vail, Ramon Montgomery, PH.B. (<i>Yale Univ.</i>) 1914,	Thompsonville, Conn.
Waring, Elmar Stebbins, A.B. (<i>Univ. of South Carolina</i>)	
1914,	Columbia, S. C.
Whitney, Raymond Cyrus, S.B. (<i>Middlebury Coll.</i>) 1914,	Millbury
Whyte, Harold Paul, A.B. (<i>Laval Univ.</i>) 1911,	Arctic, R. I.
Wickham, George Smallwood, A.B. (<i>Holy Cross Coll.</i>) 1914,	So. Lee
Wilcox, Charles Frederick, Jr., A.B. (<i>Univ. of Utah</i>)	
1913,	Salt Lake City, Utah
Williamson, Adam Cluness, A.B. (<i>Westminster Coll.</i>) 1911,	
A.M. (<i>Princeton Univ.</i>) 1914,	Brockton
Winsor, Allen Pellington, A.B. 1914,	Fairhaven
Woodward, Harry Joseph, S.B. (<i>Norwich Univ.</i>) 1912,	Montpelier, Vt.

SPECIAL STUDENTS TAKING REGULAR WORK

Bressler, Charles Wesley, A.B. (<i>Univ. of Missouri</i>) 1913,	Grant City, Mo.
Calvin, Claudius Virgil, S.B. (<i>Allegheny Coll.</i>) 1914,	Meadville, Pa.
Hunter, William Edward, A.B. (<i>Univ. of Utah</i>) 1913,	American Fork, Utah
Jackson, George Henry, Jr.	Newtonville
Jones, Merritt La Count, S.B. (<i>Univ. of Wisconsin</i>) 1912,	Wausau, Wis.
Kerr, William John, S.B. (<i>Univ. of California</i>) 1912,	Los Angeles, Cal.
O'Donnell, John Joseph, Jr.	E. Boston
Shortell, Joseph Henry,	Salem
Taylor, Clifton Clark, A.B. (<i>Dartmouth Coll.</i>) 1912,	Bridgeport, Conn.

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC	
HEALTH	2
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE	
FOURTH CLASS	82
THIRD CLASS	61
SECOND CLASS	69
FIRST CLASS	98
SPECIAL STUDENTS	9
TOTAL	321

GRADUATES OF COLLEGES

Acadia College	2	Purdue University	1
Allegheny College	3	Sacred Heart College	2
Amherst College	2	St. Francis Xavier's College (Nova Scotia)	2
Anatolia College	1	St. Mary's College	2
Bates College	4	Simpson College	1
Beloit College	1	Leland Stanford Jr. University	2
Boston College	4	Trinity College (Conn.)	1
Boston University	1	Trinity College (N. C.)	4
Bowdoin College	8	Tufts College	3
Brown University	21	University of California	4
Bucknell University	1	University of Colorado	1
Clark University (Georgia)	1	University of Georgia	3
Clark University	4	University of Illinois	2
Colby College	4	University of Kansas	1
Colorado College	5	University of Maine	1
Cornell College	3	University of Michigan	9
Cornell University	1	University of Minnesota	1
Dartmouth College	18	University of Missouri	8
Davidson College	4	University of New Brunswick	1
De Pauw University	3	University of Rochester	7
Eureka College	1	University of Southern California	7
Gonzaga University	1	University of South Carolina	1
Grinnell College	1	University of South Dakota	1
Harvard University	88	University of Texas	2
Haverford College	1	University of Toronto	1
Heidelberg University	1	University of Utah	3
Holy Cross College	16	University of Wisconsin	4
Howard University	1	Upper Iowa University	1
Illinois College	2	George Washington University	1
Iowa State College	1	Washington and Lee University	1
Lafayette College	1	Washington State University	1
Lake Forest College	1	Wesleyan University (Conn.)	1
Lincoln University	2	Westminster College	2
Loyola College	1	Williams College	5
McGill University	2	Wofford College	1
Massachusetts Agricultural College	2	Yale University	10
Massachusetts Institute of Technology	1	Total	326
Middlebury College	1	Counted more than once	15
Norwich University	1	Total Number of College Graduates	311
Oklahoma Agricultural and Mechanical College	1	Number of Colleges	77
Olivet College	1		
Princeton University	10		

ANNOUNCEMENT FOR 1915-16

The next session of the Medical School begins September 27, 1915. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Monday, the 27th of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should file an application blank, which can be obtained from the Dean's office, on or before July 1st, 1915.

CALENDAR

1915.

- Sept. 15, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Tuesday.* Columbus Day: a holiday.
- Nov. 1, Monday.* Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 25, Thursday.* Thanksgiving Day: a holiday.
- Dec. 10, Friday,* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.
- Dec. 31, Friday.* Last day for receiving dissertations for the Boylston Medical Prizes.

RECESS FROM DEC. 23, 1915, TO JAN. 2, 1916, INCLUSIVE

1916.

- Jan. 15, Saturday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1916.
- Jan. 26, Wednesday.* Mid-year Examinations begin.
- Jan. 29, Saturday.* Payment of the second instalment of the tuition-fee is required on or before this date.

- Feb. 1, Tuesday.* **Second half-year begins.**
Feb. 22, Tuesday. Washington's Birthday : a holiday.
April 1, Saturday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 16 TO APRIL 22, INCLUSIVE

- May 1, Monday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
May 1, Monday. Last day for receiving applications for the Bullard Fellowships and the Moseley Travelling Fellowships.
May 1, Monday. Last day for receiving applications for Scholarships for 1916-17 (except the Cheever, Haven, and Hayden Scholarships).
May 1, Monday. Last day for receiving applications of candidates for the degree of M.D. in 1916.
May 31, Wednesday. Memorial Day : a holiday.
June 1, Thursday. Examinations begin.
June 22, Thursday. **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 24, INCLUSIVE

- Sept. 13, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 25, Monday. **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
Oct. 12, Thursday. Columbus Day : a holiday.
Nov. 1, Wednesday. Last day for receiving essays for the William H. Thorndike Prize.
Nov. 30, Thursday. Thanksgiving Day : a holiday.
Dec. 11, Monday. Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.

OFFICIAL REGISTER OF HARVARD UNIVERSITY

*[Entered, March 6, 1913, at Boston, Mass., as second-class matter,
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The Annual Reports of the President and of the Treasurer.

The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University ; the Descriptive Pamphlet ; the Announcements of the several Departments ; etc., etc

52m
15/16

OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOLUME XIII JANUARY 26, 1916 NO. IV, PART 1

THE HARVARD MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

1915-16

WITH AN ANNOUNCEMENT FOR 1916-17



UNIVERSITY OF ILLINOIS
PRESIDENT'S OFFICE
URBANA-CHAMPAIGN
ILLINOIS

PUBLISHED BY HARVARD UNIVERSITY

ANNOUNCEMENT
OF THE
MEDICAL SCHOOL
LONGWOOD AVENUE, BOSTON, MASS.
OF
HARVARD UNIVERSITY
FOR
1915-16

WITH AN ANNOUNCEMENT FOR 1916-17



PUBLISHED BY THE UNIVERSITY

1915							1916													
JULY							JANUARY							JULY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
..	..	..	..	1	2	3	..	..	..	..	..	..	1	..	..	..	..	..	..	1
4	5	6	7	8	9	10	2	3	4	5	6	7	8	2	3	4	5	6	7	8
11	12	13	14	15	16	17	9	10	11	12	13	14	15	9	10	11	12	13	14	15
18	19	20	21	22	23	24	16	17	18	19	20	21	22	16	17	18	19	20	21	22
25	26	27	28	29	30	31	23	24	25	26	27	28	29	23	24	25	26	27	28	29
..	..	..	..	..	..	..	30	31	..	..	..	..	..	30	31	..	..	..	..	..
AUGUST							FEBRUARY							AUGUST						
1	2	3	4	5	6	7	..	..	1	2	3	4	5	..	..	1	2	3	4	5
8	9	10	11	12	13	14	6	7	8	9	10	11	12	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26	20	21	22	23	24	25	26
29	30	31	..	..	..	..	27	28	29	..	..	..	..	27	28	29	30	31	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
SEPTEMBER							MARCH							SEPTEMBER						
..	..	..	1	2	3	4	..	..	..	1	2	3	4	..	..	..	..	..	1	2
5	6	7	8	9	10	11	5	6	7	8	9	10	11	3	4	5	6	7	8	9
12	13	14	15	16	17	18	12	13	14	15	16	17	18	10	11	12	13	14	15	16
19	20	21	22	23	24	25	19	20	21	22	23	24	25	17	18	19	20	21	22	23
26	27	28	29	30	..	..	26	27	28	29	30	31	..	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OCTOBER							APRIL							OCTOBER						
..	..	..	..	..	1	2	..	..	..	..	..	..	1	1	2	3	4	5	6	7
3	4	5	6	7	8	9	2	3	4	5	6	7	8	8	9	10	11	12	13	14
10	11	12	13	14	15	16	9	10	11	12	13	14	15	15	16	17	18	19	20	21
17	18	19	20	21	22	23	16	17	18	19	20	21	22	22	23	24	25	26	27	28
24	25	26	27	28	29	30	23	24	25	26	27	28	29	29	30	31	..	..	..	..
31	..	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..
NOVEMBER							MAY							NOVEMBER						
..	1	2	3	4	5	6	..	1	2	3	4	5	6	..	..	..	1	2	3	4
7	8	9	10	11	12	13	7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30	..	..	..	..	28	29	30	31	..	..	..	26	27	28	29	30	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DECEMBER							JUNE							DECEMBER						
..	..	..	1	2	3	4	..	..	..	..	1	2	3	..	..	..	..	..	1	2
5	6	7	8	9	10	11	4	5	6	7	8	9	10	3	4	5	6	7	8	9
12	13	14	15	16	17	18	11	12	13	14	15	16	17	10	11	12	13	14	15	16
19	20	21	22	23	24	25	18	19	20	21	22	23	24	17	18	19	20	21	22	23
26	27	28	29	30	31	..	25	26	27	28	29	30	..	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..

CONTENTS

	PAGE
MEDICAL SCHOOL CALENDAR	5
GENERAL STATEMENT	7
FACULTY OF MEDICINE	8
FACULTY COUNCIL	11
ADMINISTRATIVE OFFICES	11
ADMINISTRATIVE OFFICERS	12
ADMINISTRATIVE BOARD	12
OTHER INSTRUCTORS	13
AUSTIN TEACHING FELLOWS	20
ADMISSION OF STUDENTS	21
ADMISSION TO ADVANCED STANDING	21
DIVISION OF STUDENTS	22
EXAMINATIONS	23
DEGREES	24
FEES AND EXPENSES	25
CLINICAL ADVANTAGES	27
(See Index under <i>Hospitals</i> .)	
HOSPITAL APPOINTMENTS	31
CANCER COMMISSION OF HARVARD UNIVERSITY	31
WARREN ANATOMICAL MUSEUM	32
LIBRARIES	32
FELLOWSHIPS AND SCHOLARSHIPS	33
BOYLSTON MEDICAL PRIZES	39
OTHER PRIZES	40
SPECIAL STUDENTS	40
GRADUATE SCHOOL OF MEDICINE	41
DIVISION OF STUDIES	43
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	44
FOURTH-YEAR ELECTIVES	71
TABULAR VIEW OF UNDERGRADUATE COURSES	89-95
DEGREES CONFERRED IN MARCH, 1915	96
DEGREES CONFERRED IN JUNE, 1915	96
CANDIDATES FOR DEGREES	99
ANNOUNCEMENT FOR 1916-17	110
INDEX	113

MEDICAL SCHOOL CALENDAR

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HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

The Harvard Medical School started as a branch of the University in 1782 when three professorships of medicine were established. The first degrees in medicine were conferred in 1788. Before 1811, the degree conferred was that of Bachelor of Medicine; after that date the degree of Doctor of Medicine was established. The first Medical School was built in Boston in 1815. In 1906, the Medical School moved into its new quarters on Longwood Avenue. For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors. A number of hospitals have been constructed on the grounds adjacent to the Medical School. A statement in regard to these hospitals and the other hospitals in which teaching is done will be found on pages 27-30 of this catalogue.

In 1910, under the supervision of the Department of Preventive Medicine and Hygiene, courses leading to a degree of Doctor of Public Health were established.

In 1912 the Graduate School of Medicine was established to take charge of the graduate instruction throughout the year, which had previously been given by the Harvard Medical School under the Courses for Graduates and the Summer School of Medicine. The Graduate School of Medicine will also take charge of all special students who are not candidates for the degree of Doctor of Medicine. The School of Tropical Medicine also offers instruction in the Medical School.

The academic year begins on the Monday preceding the last Wednesday in September, and ends on the Thursday preceding the last Wednesday in June. There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

MEDICAL SCHOOL

FACULTY OF MEDICINE *

	ADDRESS.†
ABBOTT LAWRENCE LOWELL, LL.B., LL.D., Ph.D., President,	17 Quincy St., Cambridge.
EDWARD H. BRADFORD, M.D., Dean,	133 Newbury St.
ABNER POST, M.D., <i>Professor of Syphilis</i> ,	16 Newbury St.
CHARLES A. BRACKETT, D.M.D., <i>Professor of Dental Pathology</i> ,	Newport, R. I.
EUGENE H. SMITH, D.M.D., <i>Professor of Clinical Dentistry and Orthodontia</i> , and <i>Dean of the Dental School</i> ,	283 Dartmouth St.
WILLIAM F. WHITNEY, M.D., <i>John Barnard Swett Jackson Curator of the Warren Anatomical Museum</i> ,	Harvard Medical School.
WILLIAM T. COUNCILMAN, M.D., A.M., LL.D., <i>Shattuck Professor of Pathological Anatomy</i> ,	78 Bay State Road.
GEORGE H. MONKS, M.D., M.R.C.S., <i>Professor of Oral Surgery</i> ,	67 Marlborough St.
HAROLD C. ERNST, M.D., A.M., <i>Professor of Bacteriology</i> ,	Harvard Medical School.
WILLIAM H. POTTER, D.M.D., <i>Professor of Operative Dentistry</i> ,	16 Arlington St.
GEORGE G. SEARS, M.D., <i>Clinical Professor of Medicine</i> ,	426 Beacon St.
WILLIAM P. COOKE, D.M.D., <i>Professor of Prosthetic Dentistry</i> ,	330 Dartmouth St.
ALGERNON COOLIDGE, M.D., <i>Professor of Laryngology</i> ,	613 Beacon St.
ROBERT W. LOVETT, M.D., <i>John B. and Buckminster Brown Professor of Orthopedic Surgery</i> ,	234 Marlborough St.
WILLIAM T. PORTER, M.D., LL.D., S.D., <i>Professor of Comparative Physiology</i> ,	Dover.
PAUL THORNDIKE, M.D., <i>Assistant Professor of Genito-Urinary Surgery</i> ,	24 Marlborough St.
HORACE D. ARNOLD, M.D., <i>Dean of the Graduate School of Medicine</i> ,	520 Commonwealth Ave.

* Arranged, with the exception of the President, Dean, and Secretary, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- MILTON J. ROSENAU, M.D., A.M., *Professor of Preventive Medicine and Hygiene*, 65 Naples Road, Brookline.
- FRANK B. MALLORY, M.D., *Associate Professor of Pathology*, Harvard Medical School.
- EDWARD H. NICHOLS, M.D., *Associate Professor of Surgery*, 294 Marlborough St.
- J. BAPST BLAKE, M.D., *Assistant Professor of Surgery*, 657 Boylston St.
- EUGENE A. CROCKETT, M.D., *Assistant Professor of Otolology*, 298 Marlborough St.
- HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery*, 101 Beacon St.
- JOHN L. MORSE, M.D., *Professor of Pediatrics*, 70 Bay State Road.
- ALEXANDER QUACKENBOSS, M.D., *Assistant Professor of Ophthalmology*, 143 Newbury St.
- CHARLES A. PORTER, M.D., *Associate Professor of Surgery*, 254 Beacon St.
- EDWARD W. TAYLOR, M.D., *Assistant Professor of Neurology*, 457 Marlborough St.
- RICHARD C. CABOT, M.D., *Assistant Professor of Medicine*, 1 Marlborough St.
- JAMES S. STONE, M.D., *Instructor in Surgery*, 234 Marlborough St.
- DAVID L. EDSALL, M.D., S.D., *Jackson Professor of Clinical Medicine*, 80 Marlborough St.
- ELLIOTT P. JOSLIN, M.D., A.M., *Assistant Professor of Medicine*, 81 Bay State Road.
- C. MORTON SMITH, M.D., *Instructor in Syphilis*, 437 Marlborough St.
- CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology*, 259 Marlborough St.
- JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology*, Mass. General Hospital.
- HARVEY CUSHING, M.D., S.D., F.R.C.S., *Moseley Professor of Surgery*, 305 Walnut St., Brookline.
- WILLIAM P. GRAVES, M.D., *Professor of Gynecology*, 244 Marlborough St.
- REID HUNT, M.D., *Professor of Pharmacology*, Harvard Medical School.
- WILLIAM H. ROBEY, JR., M.D., *Instructor in Medicine*, 202 Commonwealth Ave.
- OTTO FOLIN, Ph.D., S.D., *Hamilton Kuhn Professor of Biological Chemistry*, Harvard Medical School

- ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery*, 10 Gloucester St.
- HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology*, 828 Beacon St.
- FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology*, 443 Beacon St.
- WILLIAM H. SMITH, M.D., *Instructor in Medicine*, 10 Gloucester St.
- RICHARD P. STRONG, M.D., S.D., *Professor of Tropical Medicine*, Harvard Medical School.
- HUGH CABOT, M.D., *Assistant Professor of Genito-Urinary Surgery*, 87 Marlborough St.
- HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic*, 252 Marlborough St.
- JOHN L. BREMER, M.D., *Associate Professor of Histology*, 295 Marlborough St.
- WALTER B. CANNON, M.D., *George Higginson Professor of Physiology*, Harvard Medical School.
- CHARLES H. DUNN, M.D., *Instructor in Pediatrics*, 178 Marlborough St.
- EDWIN A. LOCKE, M.D., *Instructor in Medicine*, 311 Beacon St.
- JOHN WARREN, M.D., *Associate Professor of Anatomy*, Harvard Medical School.
- HERMAN M. ADLER, M.D., *Assistant Professor of Psychiatry*, 74 Fenwood Road.
- DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy*, 20 Hereford St.
- FREDERIC T. LEWIS, M.D., *Associate Professor of Embryology*, Harvard Medical School.
- FREDERICK T. LORD, M.D., *Instructor in Medicine*, 305 Beacon St.
- ERNEST G. MARTIN, Ph.D., *Assistant Professor of Physiology*, Harvard Medical School.
- ELMER E. SOUTHARD, M.D., A.M., *Bullard Professor of Neuropathology*, 70 Francis Ave., Cambridge
- PERCY G. STILES, Ph.D., *Instructor in Physiology*, 19 Proctor St., Newtonville
- ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology*, Harvard Medical School.
- LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry*, Harvard Medical School.
- S. BURT WOLBACH, M.D., *Associate Professor of Bacteriology*, Harvard Medical School.

- MARSHAL FABYAN, M.D., *Assistant Professor of Comparative Pathology*, Harvard Medical School.
- WORTH HALE, M.D., *Assistant Professor of Pharmacology*, 60 Wendell St., Cambridge
- EDWIN H. PLACE, M.D., *Assistant Professor of Pediatrics*, 745 Massachusetts Ave.
- FRITZ B. TALBOT, M.D., *Instructor in Pediatrics*, 100 Cottage Farm Road, Brookline.
- WALTER R. BLOOR, PH.D., *Assistant Professor of Biological Chemistry*, Harvard Medical School.
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- ALEXANDER FORBES, M.D., *Instructor in Physiology*, Milton.
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ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL

The Dean's Office is in the Administration Building of the Medical School, Room 104. It is open daily from 9 to 1 and from 2 to 5, except on Saturdays, Sundays, and holidays; on Saturdays it is open from 9 to 1. Those seeking information about the Medical School should inquire at this office.

The Bursar's Office is in Dane Hall, Harvard University, Cambridge. It is open daily, except Sundays and holidays, from 9 to 1, for the receipt of fees, payments, and other financial business. A representative of the Bursar will be in the Administration Building at the Medical School at stated hours on certain days at the opening of each term for the receipt of fees from regular students.

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL

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Office, 5 University Hall, Cambridge.

Dean: EDWARD H. BRADFORD, M.D.

Office, Administration Building, Medical School. Office hours by appointment.

Secretary of the Faculty: FRANCIS W. PALFREY, M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays, 4 to 5 P.M.

Business Director: ROGER PIERCE, A.B.

Office, Administration Building, Medical School.

Director of Scholarships in the Medical School: FRANKLIN DEXTER, M.D.

Office, Room 386, Building D I, Medical School. Office hours, Mondays, 2 to 3.15 P.M., for appointments.

Director for Appointments for Medical Alumni: A. B. EMMONS, 2d, M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays and Fridays, 4.00 to 5 P.M., and by appointment.

Adviser to Students in Harvard College preparing for the study of Medicine: WALTER B. CANNON, M.D.

Office, 2 Divinity Avenue, Cambridge. Office hours, 7 to 8 P.M., by appointment.

Chairman of the Committee on the Degree of Doctor of Public Health: MILTON J. ROSENAU, M.D.

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Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences: LAWRENCE J. HENDERSON, M.D.

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Chief Clerk in the Dean's Office: HELEN G. MEDBURY.

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OTHER INSTRUCTORS IN THE HARVARD MEDICAL SCHOOL *

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SAMUEL J. MIXTER, M.D., <i>Lecturer on Surgery,</i>	180 Marlborough St.
WILLIAM F. KNOWLES, M.D., <i>Instructor in Otology,</i>	220 Clarendon St.
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JOSEPH L. GOODALE, M.D., <i>Instructor in Laryngology,</i>	258 Beacon St.
FARRAR COBB, M.D., <i>Lecturer on Surgery,</i>	28 Commonwealth Ave.
FREDERIC J. COTTON, M.D., <i>Lecturer on Surgery,</i>	520 Commonwealth Ave.
PHILIP HAMMOND, M.D., <i>Associate in Otology,</i>	483 Beacon St.
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CALVIN G. PAGE, M.D., <i>Instructor in Bacteriology,</i>	128 Marlborough St.

* Arranged on the basis of collegiate seniority.

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AUSTIN TEACHING FELLOWS

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 MACIVER WOODY, M.D., *in Surgery*, Harvard Medical School.
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HARVARD MEDICAL SCHOOL

ADMISSION OF STUDENTS

As candidates for the Degree of Doctor of Medicine the School receives the following:

I. Graduates in arts or science of approved colleges or scientific schools who can furnish evidence

(a) That they have such knowledge of physics, of biology, of general chemistry, and of organic chemistry,* as may be obtained from one year's course in each of these subjects as given in approved colleges and scientific schools.

(b) That they have a reading knowledge of French or German.

II. Students who have completed two years of work in a college or scientific school of high rank, provided they present certificates (1) that they have stood in the upper third of their class, (2) that one year's course has been taken in physics, in biology, and in general chemistry and in organic chemistry, and (3) that they have a reading knowledge of German or French.

These requirements are to be satisfied in full before matriculation.

Partial deficiencies in single subjects may be made up prior to admission by courses in the Harvard Summer School.

Students are requested to apply for admission before July 1st on registration blanks to be furnished by the Secretary.

The Administrative Board reserves the right in its discretion to refuse applicants if the number admitted is as large as can be effectively taught

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other approved medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

They must have fulfilled the requirements for admission enumerated under I or II.

They must furnish a satisfactory certificate of time spent in medical study, successfully completed, at least equal to that spent by the class to which they seek admission.

* In organic chemistry college half-courses of good grade may be accepted if satisfactorily completed.

They must furnish satisfactory certificates that they have done satisfactory laboratory and practical work in the subjects already pursued by the class to which they seek admission.

They must pass examinations, or receive credit for all courses required to have been passed by the class which they seek to enter.

Before they can be admitted to the third or fourth class they must pass the first general examination.

Graduates of other medical schools of recognized standing may be admitted to advanced standing in accordance with the above regulations.

The minimum time of residence at this School for candidates for the degree of M.D. shall be one year; all candidates for the degree of M.D. must perform in full the work of the fourth year of the regular curriculum.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required practical examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed the first general examination.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has failed on all of the practical examinations on first-year subjects.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Monday, the first day of the academic year.

Students are required not to engage as hospital assistants during term time, except in so far as required by the School curriculum.

Any student may obtain a certificate of his period of connection with the School.

The Faculty reserves the right to require the withdrawal of any student at any time whenever in the opinion of his instructors it is manifest that he is incompetent for his work, or for any reason he is unfitted to continue his course.

EXAMINATIONS

Each student will receive a practical rating in each course based upon practical examinations or other tests as determined by each Department. Two general examinations will be required of the candidate for the M.D. degree, the first after the completion of the second year, and the second after the completion of the fourth year of medical study. Each consists of a written examination given in two periods on two successive days supplemented, if required, by an oral examination.

For the first general examination the student may choose either June or September, but no student will be admitted to this examination until he has completed the courses included in the examination, and has received satisfactory practical ratings in these various courses. The subjects comprised in the first general examination will be Anatomy, Histology and Embryology, Physiology, Biological Chemistry, Pathology, Pharmacology and Bacteriology.

For the second general examination the student may choose either June or January, but no student will be admitted to this examination until he has passed satisfactorily the first general examination, has completed four years of medical study in four different calendar years, including the regular fourth-year course of study at the Harvard Medical School, has completed the courses included in this examination, and has received satisfactory practical ratings in these courses. The subjects comprised in the second general examination will be Preventive Medicine and Hygiene, Medicine, Surgery, Pediatrics, Obstetrics, Gynaecology, Dermatology, Syphilis, Neurology, Psychiatry, Ophthalmology, Otology and Laryngology.

Any student who fails three times in a general examination will be debarred from further attempts.

If a portion of the general examination (written or oral) is taken by a student, this will constitute an attempt to pass the examination. Failure to complete all parts, unless prevented by illness, shall be regarded as a failure to pass.

In addition to the above examinations every student is required :—

To dissect the three parts of the body to the satisfaction of the demonstrator;

To take charge of and report on six cases in Obstetrics, under supervision and instruction;

To furnish satisfactory evidence of having engaged in the practical exercises in Medicine and Surgery.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass a practical examination, each student must pay a fee of three dollars at the Dean's office before appearing for each additional practical examination in the same subject.

DEGREES

DEGREE OF DOCTOR OF MEDICINE

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent in the regular fourth-year course of this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates entering the Medical School previous to 1912-13 who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates entering the Medical School in and after 1912-13, who pass the final general examination with honor, shall receive the degree of Doctor of Medicine *cum laude*, and candidates who pass both general examinations with honor shall receive the degree of Doctor of Medicine *magna cum laude*.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

DEGREE OF DOCTOR OF PUBLIC HEALTH

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of Doctor of Public Health must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of Doctor of Public Health, and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medicine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of Doctor of Public Health. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of Doctor of Public Health.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students.

Candidates for the degree of Master of Arts must be Bachelors of Arts of Harvard College, or Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences. Candidates must pursue an approved course of study in medical science for at least one year.

Candidates for the degree of Doctor of Philosophy must fulfil certain preliminary requirements, must devote to approved advanced studies not less than two years, — at least one of which must be spent in residence at this University, and must pass general examinations and present an account of original work in an accepted thesis, before being granted the degree.

Further information concerning these degrees may be obtained from Assistant Professor LAWRENCE J. HENDERSON, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

DEGREE OF DOCTOR OF MEDICINE

The fees are :—For matriculation, five dollars; for instruction (including laboratory charges except breakage, damage and loss of apparatus), two hundred and twenty-five dollars for each year (if in two payments, at the first, one hundred and thirty-five dollars; at the second, ninety dollars); for a half-year alone, one hundred and thirty-five dollars.* The matriculation fee and the instruction fee (if in two payments, the first instalment thereof) are to be paid to the Bursar† punctually at the beginning of the academic year, without the presentation of a bill; and the second instalment is to be paid on or before January 31. On or before January 31, first-year students are to make a deposit of ten dollars with the Bursar to cover charges for breakage, damage and loss of apparatus, in accordance with the requirements established by the several departments in which they occur. A student may rent a microscope from the School upon

* Students who were members of the School in 1912-13 or earlier will be allowed to complete the course for the fees prescribed in the Catalogue of 1912-13.

† The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

application to the Committee on Microscopes. A deposit of one dollar with the Dean will entitle the student to the use of a locker in the School buildings.

No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

BOND REQUIRED OF STUDENTS

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School and have subsequently received their bond from the Bursar.

DEGREE OF DOCTOR OF PUBLIC HEALTH

A fee of \$150 annually is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

STILLMAN INFIRMARY FEE

Not later than October 5 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken

advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

WITHDRAWAL FROM THE SCHOOL

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. *No degree can be granted until the student has paid the full tuition fee for each year (first, second, third, fourth) in which he has been registered as a member of the School.*

If a student withdraws from the School for part of a year for good and sufficient reason as determined by the Faculty, he may leave his fees deposited with the Bursar to be used at some later date for instruction equivalent to that which he missed by his withdrawal. If a student shortens his four years' work by working in the Summer School of Medicine, he must still pay a full tuition fee for each year he is registered as a member of the School.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students, who are admitted freely to the Out-patient departments, wards and operating rooms of these hospitals:—

The Peter Bent Brigham Hospital.—This general hospital has been in active operation since February, 1913. The hospital is for general medical and surgical cases, and is situated on ground adjacent to the Medical School buildings. There are in all two hundred beds, and there is a medical and surgical out-patient department which is open for patients throughout the twenty-four hours. Dr. HENRY A. CHRISTIAN, Jersey Professor of the Theory and Practice of Physic, and Dr. HARVEY CUSHING, Moseley Professor of Surgery, in the Harvard Medical School, have been appointed by the trustees of the Hospital Physician-in-chief and Surgeon-in-chief respectively.

The Collis P. Huntington Memorial Hospital.—This Hospital, which has been erected by the Cancer Commission of Harvard University on the Medical School grounds, affords opportunity for the study of human tumor cases, with the advantage of a close approximation of clinical and laboratory facilities. The aim of the hospital is the study of special problems with the view of adding to the knowledge of the natural history and the rational treatment of tumors, and also to be of public service in affording means for early diagnosis and in carrying out treatment or giving advice regarding therapeutic measures. Accommodations are provided for twenty-four in-patients; out-patients are also received at stated hours.

The Massachusetts General Hospital.—During the past year, six thousand four hundred and thirteen patients were treated in the wards, five thousand two hundred and seventy-eight patients were treated in the Accident Ward, and there were one hundred fifty-eight thousand and ninety visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the surgical building. Last year there were three thousand nine hundred and ninety-three operations in the house and three thousand two hundred and three in the Out-Patient Department and Accident Ward. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedics, Diseases of the Genito-Urinary System, and Syphilis. Two Dalton scholarships, of \$500 each, are open annually to the house pupils.

The Boston City Hospital.—During the past year, nineteen thousand and seventy-nine cases were treated in its wards, and there were two hundred and seventeen thousand seven hundred and ninety-one visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, ninety-four thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, the nervous system, the nose and throat, genito-urinary system, and the bones and joints. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In this hospital, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of

the class. The number of these operations is large, reaching over four thousand seven hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital. — More than eight hundred patients were delivered during the last year in the Hospital. In the out-patient department, nearly two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — Over one hundred and ten thousand visits were made by out-patients at this charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery. The opportunities in children's work are unusually good, as over one-third of the out-patients are children and there is, in addition, a well-equipped Hospital for Children, with thirty beds chiefly for medical cases.

Infants' Hospital (Roth Memorial Building). — The wards of the Hospital are devoted entirely to infants. Twenty beds are at present in use. The number will, however, probably be soon increased. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — In April, 1914, the new buildings of the Hospital on Longwood Avenue, adjacent to the Harvard Medical School, were opened. During the past year more than twenty-five hundred cases were treated in the wards and over thirty thousand visits were made to the out-patient departments. Instruction in pediatrics, surgery, and orthopedic surgery is given by members of the hospital staff.

The McLean Hospital. — During the past year a daily average number of two hundred and twenty patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, occupation, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, pathological, chemical, and psychological work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and

treatment of each case. These exercises and clinical demonstration in the wards are available for a limited number of students.

The Boston State Hospital.—During the past year thirty-six hundred and fifty-five patients were under treatment. Clinical instruction is given at the Psychopathic Department, Fenwood Road, in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Besides regular commitments, emergency, voluntary and temporary care cases are received; the whole number of patients admitted last year was twenty-three hundred and thirty-four, including many instructive examples of the various forms of mental disease.

The Psychopathic Hospital.—This is the receiving hospital of the Boston State Hospital, situated on Fenwood Road, two blocks removed from the Medical School grounds. The hospital was opened to patients in June, 1912. It has one hundred beds and receives patients at the rate of about two thousand a year. The out-patient department receives patients at the rate of over fifteen hundred a year. This large admission rate insures the presence at all times in the hospital wards of a varied clinical and pathological material. The State Board of Insanity has provided laboratories in the building.

The Massachusetts Charitable Eye and Ear Infirmary.—About sixty thousand visits are made yearly by patients in the out-patient department and thirty-six hundred are treated in the wards, affording an opportunity to observe every variety of eye and ear diseases, together with daily operating. The services are so arranged that it is possible to easily follow the patient through his entire course of treatment both in the wards and out-patient department.

The Free Hospital for Women.—This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital has a capacity of sixty-three beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week, beginning at nine o'clock in the morning and at three o'clock in the afternoon, excepting Saturday afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

THE CANCER COMMISSION OF HARVARD UNIVERSITY

The Cancer Commission of Harvard University was founded in 1899, by the late Mrs. Caroline Brewer Croft, who left in her will a sum of money for the investigation of the cause and treatment of cancer. Dr. J. Collins Warren and Dr. Henry K. Oliver were the Trustees of this fund. Since that time other sums have been contributed for cancer research and the Cancer Commission of Harvard University was organized in 1909, consisting of the following members: J. Collins Warren, M.D., Chairman; Henry K. Oliver, M.D., and J. Collins Warren, M.D., for the Caroline Brewer Croft Fund; Henry P. Walcott, M.D., and Arthur T. Cabot, M.D., for the Corporation of Harvard College; William T. Councilman, M.D., and Theobald Smith, M.D., for the Harvard Medical School. To fill the vacancy caused by the death of Dr. Arthur T. Cabot, Dr. Edward H. Bradford was appointed by the Corporation in 1912; Mr. Arthur Adams was also appointed Treasurer, and Dr. Robert B. Greenough, Secretary.

Under this Commission research on cancer problems has been carried on, and five reports of research work have been published. Investigations were carried on in the laboratories of the Harvard Medical School, and at the Massachusetts General Hospital until April, 1912, when the Collis P. Huntington Memorial Hospital (page 28) was completed. The work of the Cancer Commission is at present carried on in the laboratories of the Harvard Medical School and in the Huntington Hospital. Ernest E. Tyzzer, M.D., Assistant Professor of Pathology, is Director; Robert B. Greenough, M.D., Assistant Professor of Surgery, is Surgeon in charge of the Hospital, and Edward H. Risley, M.D., is Assistant Surgeon; Henry A. Christian, M.D., and Francis W. Peabody, M.D., are Consulting Physicians; Miss I. W. Mason is Matron and Superintendent of the Hospital.

William Duane, Ph.D., Assistant Professor of Physics, is Research Fellow of the Cancer Commission in charge of the research work on radium and radioactive substances, and their preparation for therapeutic

use. William T. Bovie, M.D., is Research Fellow in Physics; Clarence C. Little, S.D., in Genetics, and Henry Lyman, M.D., in Chemistry.

During the year 1914-15, one hundred and twenty-nine new patients were cared for in the wards of the hospital, and two hundred and ninety-four patients were seen as out-patients.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, many of them preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in the Administration Building and in three of the laboratory buildings contain the literature of the subjects taught in this School. These libraries are open daily and contain about 27,000 volumes, 46,067 pamphlets, and receive 263 current periodicals.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 84,000 bound volumes and 56,000 pamphlets, and nearly 650 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and fifty dollars each, and of the last, two hundred and seventy-five dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

THE JAMES JACKSON CABOT FELLOWSHIP; with an income of three hundred and fifty dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. In 1912 Guy C. Cabot added four thousand dollars to this fund. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a fellowship "to aid and encourage practical work in scientific medicine."

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom,

A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of five hundred and seventy-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand two hundred dollars. Founded in 1910 by FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D. "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

WILLIAM O. MOSELEY, JR., TRAVELLING FELLOWSHIPS; two, with a stipend of one thousand eight hundred dollars each, for the purpose of studying medicine in Europe. In January, 1912, Mrs. William O. Moseley left a bequest of seventy-four thousand dollars to establish two travelling Fellowships, to be granted annually to two men who have attended the Harvard Medical School for three or four years, and who have given evidence of their diligence and ability, the election of such men to be made by the President and proper officers connected with the Medical School. Applications for these Fellowships must be handed to the Dean on or before May 1st.

ARTHUR TRACY CABOT FELLOWSHIP. In 1913, Dr. and Mrs. Frederick C. Shattuck gave twenty-five thousand dollars for the establishment of a Fellowship in Surgery in memory of Arthur Tracy Cabot, M.D., of the Class of 1872, Fellow of the Corporation. The holder of the Fellowship is not ordinarily to engage in active private practice while holding it but to devote himself to the advancement of Surgery whether in the United States or elsewhere. The nomination to this Fellowship is by preference to be in the hands of the Moseley Professor of Surgery.

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

HERBERT L. BURRELL FUND. The income of this fund, amounting to two hundred and sixty dollars annually, is to be devoted to the further-

ance, directly or indirectly, of the art and science of surgery. The special disposition of the income of this fund is subject to recommendations of the Dean of the Harvard Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

WILLIAM H. THORNDIKE FUND. The income of this fund, amounting to two hundred and sixty dollars annually, is to be devoted to the furtherance, directly or indirectly, of the art and science of surgery. The special disposition of the income of this fund is subject to recommendations of the Dean of the Harvard Medical School.

SCHOLARSHIPS

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and seventy-five dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be

awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHER-
SPON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half
of the income derived therefrom, amounting to one hundred and twenty-five
dollars, "is to be given annually as a scholarship to a deserving student
in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual
income of two hundred dollars each. Founded from the residuary be-
quest of thirty-seven thousand eight hundred and ninety-seven dollars
and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding
deserving and indigent young men in obtaining an education in said Col-
lege or any of the schools connected therewith." Three Scholarships on
this foundation have been assigned to the Harvard Medical School.

GEORGE HAVEN SCHOLARSHIPS, with an income of eleven hundred
dollars, were founded in 1913 from a bequest under the will of George
Haven, the income to be used annually for scholarships to deserving
students of the first year in the Medical School, the amount of such
scholarships to be at the discretion of the Scholarship Committee.

The **LEWIS AND HARRIET HAYDEN SCHOLARSHIP** for colored students
was founded in 1894 from a bequest of Mrs. Harriet Hayden. The
income, two hundred and fifty dollars, may be divided between two or
more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two
hundred and twenty-five dollars each, were founded in 1897 from a bequest
of William Hilton.

WILLIAM OTIS JOHNSON SCHOLARSHIP, with an income of one hundred
and seventy-five dollars, was founded in 1912 from a bequest under the
will of Mrs. William O. Johnson, in memory of her husband, William
Otis Johnson, M.D., of the Class of 1845.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of three hundred
dollars, is from a bequest of six thousand dollars by Claudius Marcellus
Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two
hundred and fifty dollars, was founded in 1895 by Mrs. George Linder.
It is to be awarded to a needy student who shall have proven himself
to be of sound principles and marked ability.

The **JOSEPH PEARSON OLIVER SCHOLARSHIP,** with an income of four
hundred dollars, was founded in 1904 by patients of the late Joseph
Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving

student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and seventy-five dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of three hundred and twenty-five dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

The **JOHN THOMSON TAYLOR SCHOLARSHIP**, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and fifty dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious students needing assistance. The next assignment in the Medical School will be made in 1916.

JAMES EWING MEARS GIFT IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of any degree from Harvard University. For further particulars, see University Catalogue for 1915-16, page 641.*

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further in the University Catalogue for 1915-16, page 614.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. This Scholarship, founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee or Kentucky. The terms of gift are quoted further on page 616 of the University Catalogue for 1915-16.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever, Hayden, and Haven Scholarships must be handed to the Director of Scholarships on or before *December 11th*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

BOYLSTON MEDICAL PRIZES

These prizes, which are *open to public competition*, are offered for the best dissertation on questions in medical science proposed by the Boylston Medical Committee.

Information in regard to coming prizes may be obtained from the Secretary, H. C. ERNST, M.D., Harvard Medical School, Boston, Mass.

In awarding these prizes, preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear, in place of the author's name, some sentence or device, and must be accompanied by a sealed packet, bearing the same sentence or device, and containing within the author's name and residence.

Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within *one year* after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes :—

1. That the Board does not consider itself as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
2. That, in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows of Harvard College, and consists of the following physicians: WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; WILLIAM T. PORTER, M.D., HENRY A. CHRISTIAN, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D., REID HUNT, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

Otological Prize.—For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue for 1915-16, pages 583-589 and 637-640.

SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. Hitherto such students have been registered as members of the Harvard Medical School; but, with the establishment of the Graduate School of Medicine, October 1, 1912, these special students are enrolled in the membership of that School, if they are not candidates for the degree of Doctor of Medicine. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work, and must be accepted as a student by the Administrative Board of the Graduate School of Medicine.

GRADUATE SCHOOL OF MEDICINE

On October 1, 1912, graduate instruction in medicine was organized as a Department of the Faculty of Medicine of Harvard University, with a separate Dean and Administrative Board.

The object is, by better organization and the development of teaching facilities, — both clinical and laboratory, — to offer graduates in medicine opportunities to continue their studies in as thorough and scientific a manner as in the Medical School proper.

Adequate opportunities for study will be offered for those graduates who wish to review past studies and for those who wish to keep abreast of recent advances in medicine. Other courses will be offered for those who are interested in special subjects, and the excellent opportunities for advanced study and for research in all departments of medical science will be made available for those who are qualified by previous training to undertake such work. Thus graduates in medicine, both of remote and of recent date, whether desiring fundamental reviews or in quest of the attainment of higher standards, are provided for. Graduates of recognized medical schools will be accepted as students.

While all courses are intended primarily for those who hold degrees from recognized medical schools, certain courses in the scientific subjects are adapted to the needs of advanced students and teachers of science. Such persons may be admitted to courses on the approval of the Administrative Board.

Undergraduate students of medicine may be admitted by vote of the Administrative Board to such courses as they are qualified to take. Special consideration for the needs of such students will be given in the plans for summer courses.

The laboratory facilities in the buildings of the Harvard Medical School and at some of the hospitals are available for graduate instruction, as are also abundant clinical opportunities of all kinds in the following institutions : —

Massachusetts General Hospital,
Boston City Hospital,
Peter Bent Brigham Hospital,
Carney Hospital,
Boston Dispensary,
Massachusetts Eye and Ear Infirmary,
Boston Lying-in Hospital,
Free Hospital for Women,

Children's Hospital,
Infants' Hospital (Rotch Memorial Building),
Massachusetts Babies' Hospital,
McLean Hospital,
Boston State Hospital,
Danvers State Hospital.

Clinical and laboratory instruction will be conducted in small classes so that students may receive personal attention.

The fees for separate courses vary from \$5 to \$125, according to the nature of the instruction and the duration of the course. An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the office of the Dean of the Graduate School of Medicine, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the Dean of the Graduate School of Medicine, Harvard Medical School, Longwood Avenue, Boston, Mass.

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH-YEAR ELECTIVES
Anatomy	Bacteriology	Medicine	Anatomy 1, 2, and 3
Histology and Embryology	Pathology	Surgery	Physiology 1 and 2
Physiology	Anatomy	Röntgenology	Comparative Physiology 1 and 2
Biochemistry	Preventive Medicine and Hygiene	Obstetrics	Biochemistry 1
	Pharmacology	Pediatrics	Bacteriology 1
	<i>Medicine</i>	Dermatology	Pathology 1, 2, 3, and 4
	<i>Physical Diagnosis</i>	Syphilis	Comparative Pathology 1 and 2
	<i>Clinical Pathology</i>	Neurology	Psychiatry 1
	<i>Surgery</i>	<i>Genito-Urinary Surgery</i>	Ophthalmology 1 and 2
	<i>Surgical Pathology</i>	<i>Legal Medicine</i>	Otology 1, 2, and 3
	<i>Surgical Technique</i>		Laryngology 1 and 2
	<i>Neurology</i>		Combined Course in Gynaecology, Ophthalmology, Otology, and Laryngology.
	<i>Dermatology</i>		Friday afternoons devoted to class exercises.
			Pediatrics 1

NOTE. — Subjects not completed in a given year are in *italics*. In the fourth year, electives must be chosen aggregating 1000 hours; both half-courses and quarter-courses are offered occupying 125 and 65 hours respectively.

Orthopedic Surgery, Gynaecology, Ophthalmology, Otology, and Laryngology, previously given in the third year, will next year be given in the fourth year.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
C.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
H.M.H.	= Huntington Memorial Hospital.
I.H.	= Infants' Hospital (Rotch Memorial).
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
P.B.B.H.	= Peter Bent Brigham Hospital.
P.H.	= Psychopathic Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

- , *James Stillman Professor of Comparative Anatomy and Director of the Laboratory of Anatomy.*
- *HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology and Instructor in Anatomy.*
- JOHN L. BREMER, M.D., *Associate Professor of Histology.*
- JOHN WARREN, M.D., *Associate Professor of Anatomy.*
- DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy and Associate in Surgery.*
- FREDERIC T. LEWIS, M.D., *Associate Professor of Embryology.*
- ALEXANDER S. BEGG, M.D., *Instructor in Comparative Anatomy.*
- ROBERT M. GREEN, M.D., *Instructor in Anatomy.*
- WALTER M. BOOTHBY, M.D., *Instructor in Anatomy.*
- ARCHIBALD MCK. FRASER, M.D., *Assistant in Anatomy.*

- EDWARD H. RISLEY, M.D., *Assistant in Anatomy.*
 JOHN BRYANT, M.D., *Assistant in Anatomy.*
 TORR W. HARMER, M.D., *Assistant in Anatomy.*
 RICHARD H. MILLER, M.D., *Assistant in Anatomy.*
 GEORGE W. MORSE, M.D., *Assistant in Anatomy.*
 ANDREW R. MACAUSLAND, M.D., *Assistant in Anatomy.*
 KURT H. THOMA, D.M.D., *Assistant in Dental Anatomy.*
 WILLIAM R. MORRISON, M.D., *Assistant in Anatomy.*
 EDWARD A. BOYDEN, A.M., *Teaching Fellow in Histology and Embryology.*
 JOSEPH M. THURINGER, M.D., *Assistant in Histology and Embryology.*
 PAUL E. LINEBACK, M.D., *Teaching Fellow in Histology and Embryology.*
 RALPH F. SHANER, Ph.B., *Teaching Fellow in Histology and Embryology.*
 ZABDIEL B. ADAMS, M.D., *Fellow in Anatomy.*
-

THOMAS F. WHEELDON, A.M., *Austin Teaching Fellow in Histology and Embryology.*

In this department instruction is given in Anatomy, Comparative Anatomy, Histology and Embryology. The department occupies the Morgan Anatomical Building, the dissecting rooms being in the wing designated BI, and the laboratories for Histology, Embryology, and Comparative Anatomy in the wing BII. There are separate rooms for fourth-year and graduate students and for various kinds of technical work. The class work is carried on by sections in unit rooms, which are well lighted, and thoroughly equipped. Each unit room measures twenty-three by thirty feet and is designed to accommodate twelve or twenty-four students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about ten thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for work in human and comparative anatomy and embryology.

The Embryological Collection is a unique feature of the laboratory. It comprises over nineteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes sixty series of sections from human embryos, several

of which are of exceptional value, among them being two of the very youngest stages of man yet obtained. The collection of embryological models contains the standard series and many unique original models.

REGULAR COURSES

First Year.—This course is intended to teach the normal, gross anatomy, histology, and embryology of the human body. Half of the time is devoted to work in the dissecting room, the other half to work in the histological and embryological laboratories. In the study of gross anatomy, each student makes a complete dissection of one-half of the human body, and all of the class dissect the same part at the same time. Two men will be assigned to the same subject, and will work together during the course. The study of the skeleton is carried on with the dissection, and each student will be provided with a box of bones which may be kept throughout the course. There will be daily lectures and demonstrations which are arranged to correspond as closely as possible with the work in the dissecting room. These lectures will serve not only as a guide to the regular work in the dissecting room, but will also be used to emphasize these details of human anatomy which the student cannot easily study for himself in his own dissection. Special dissections made by prosectors from the second year class, frozen sections, and various anatomical specimens and preparations will be displayed each day to illustrate and supplement that part of the subject treated in the lecture, or about to be studied in the dissecting room. Students are urged to examine these specimens carefully, and to discuss them informally with the instructors. In December and January, Room 226 will be used as a study room for purposes of review, and it will be equipped with various dissections and preparations. This room will be placed in charge of a committee of the class who will be expected to assume full responsibility for its proper use. Students will be quizzed each week on their work in the laboratory by the instructors in charge of their section. There will also be a certain number of written tests on Saturday mornings and two oral practical examinations before the final practical examination.

The part of the course dealing with microscopic anatomy is a study of cells, tissues, and organs, from the developmental standpoint. Cell structure and the fundamental tissues are considered first. This is followed by a study of chick embryos of 30 and 48 hours and pig embryos of 20 days, in which special stress is laid on the origin and growth of the different organs. During the remainder of the course the organs of the adult are studied in succession. In connection with the uterus, the human placenta and fetal membranes are considered. The month of January is devoted to the central nervous system and sense organs.

Microscopes. — Every student is strongly urged to purchase a microscope, which is a necessity in this and other courses in the School, and constantly useful in later years. The instructors will gladly advise students in regard to such purchases. Those not thus provided may rent microscopes at four dollars for the course.

FIRST YEAR

October, November, December, and January

HOURS

Lectures. Assoc. Professors WARREN and BREMER. <i>Eleven lectures a week, nine hours.</i>	144
Demonstrations. <i>To sections of the class, at the pleasure of the instructors.</i>	
Laboratory work. <i>Six and one-half hours, five times a week.</i>	520

Second-Year Anatomy

The course in second year anatomy begins on the first of February and lasts for nine weeks. The class will be divided into three sections, and each section will have approximately four hours per week. The work will consist chiefly of the careful study and drawing of selected frozen sections of the human body. Anatomical charts, special dissections, and preparations will be continuously displayed in the laboratory to illustrate the various structures seen in the sections. The drawings are to be handed in at frequent intervals for correction, and they will be discussed with each student. There will be also frequent informal, individual quizzes and discussions as the work progresses. The work in the laboratory is planned to be carried on in close coöperation with the clinical courses in medicine and surgery, and the students are strongly urged to compare the anatomical structures seen in the study of the frozen sections, especially of those through the body cavities, with the conditions found in the physical examination of patients in the hospital wards and clinics. This association between the anatomical laboratory and the clinical courses should be regarded as of a great practical importance. The course is also intended to serve as a topographical review of the work of the first year, and there will be a final written examination which will cover the work in both the first and second year courses in anatomy.

SECOND YEAR

February and March

Laboratory work to sections of the class, <i>four hours per week.</i>	36
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INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 72.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

ERNEST G. MARTIN, Ph.D., *Assistant Professor of Physiology.*

PERCY G. STILES, Ph.D., *Instructor in Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

LEROY N. FLEMING, M.D., *Assistant in Physiology.*

BERNARD RAYMOND, A.M., *Assistant in Physiology.*

JAMES R. MARTIN, Ph.B., *Teaching Fellow in Physiology.*

NEUTON S. STERN, M.D., *Teaching Fellow in Physiology.*

BRENTON R. LUTZ, S.B., *Teaching Fellow in Physiology.*

McKEEN CATTELL, S.B., *Teaching Fellow in Physiology.*

— — —, *Fellow in Physiology.*

HAROLD F. PIERCE, A.B., *Austin Teaching Fellow in Physiology.*

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a

record of his experiments and observations in a laboratory note-book. These records are examined and criticised.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology, based upon reading of the records of original investigations, is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Wednesday mornings are largely devoted to work in the Library. Some of the theses, which are closely related to the regular instruction, are presented before the class. Among those read publicly during the past academic years were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is quizzed orally every week by the instructing staff. Usually at the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. The examination books are returned, corrected, to the students. Five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Students who have had, before entering this course, a large part of the laboratory work or much laboratory experience may be permitted to coöperate with members of the staff in special investigations. Such students are excused from the preparation of theses.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 73.

FIRST YEAR (Second half)

HOURS

Laboratory experiments. Professor CANNON, Asst. Professor MARTIN, Drs. STILES, FLEMING, STERN, and Messrs. RAYMOND, LUTZ, CATTELL, and PIERCE. <i>Daily.</i>	176
Quizzes (14). <i>One hour Saturdays.</i>	14
Written tests (5). <i>One hour Mondays.</i>	5
Lectures (90). Professor CANNON, Asst. Professor MARTIN, Drs. FORBES and STILES.	90
Special demonstrations (30). Professor CANNON and Dr. FORBES.	15
Discussion of Theses (30).	10
Thesis. Written by each student from the original sources.	
Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the professor in charge.

II. *Comparative Physiology of Muscle.* Professor PORTER. *Three hours weekly during February and March.*

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. *Mondays and Thursdays, 5 to 6 P.M., throughout the year.*

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 74.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*
 LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry.*

WALTER R. BLOOR, Ph.D., *Assistant Professor of Biological Chemistry.*

EDWARD P. PHELPS, S.M., *Assistant in Biological Chemistry.*

THEODORE F. ZUCKER, S.M., *Assistant in Biological Chemistry.*

EDWARD A. DOISY, A.B., *Assistant in Biological Chemistry.*

GOODWIN LEB. FOSTER, A.B., *Teaching Fellow in Biological Chemistry.*

HENRY LYMAN, M.D., *Fellow in Biological Chemistry.*

RICHARD D. BELL, M.D., *Fellow in Biological Chemistry.*

SAMUEL E. CHIU, M.D., *Austin Teaching Fellow in Biological Chemistry.*

First Year.—The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, and of the general principles and more important facts of physiological chemistry.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 74.

FIRST YEAR (Second half)

HOURS

Lectures. Professor FOLIN and Asst. Professor BLOOR. *One hour, five times a week.* 80

Laboratory work. Professor FOLIN, Asst. Professor BLOOR, and Messrs. PHELPS, ZUCKER, FOSTER, and CHIU. *Two and one-half hours, five times a week.* 200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Associate Professor of Bacteriology.*

CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*

ALBERT E. STEELE, M.D., *Instructor in Bacteriology.*

CLEAVELAND FLOYD, M.D., *Instructor in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*

HORACE K. BOUTWELL, M.D., *Assistant in Bacteriology.*

LESLEY H. SPOONER, M.D., *Assistant in Bacteriology.*

JAMES A. HONEIJ, M.D., *Fellow in Bacteriology.*

JOHN W. HAMMOND, JR., M.D., *Fellow in Bacteriology.*

WILLIAM R. OHLER, M.D., *Austin Teaching Fellow in Bacteriology.*

Second Year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 74.

SECOND YEAR

HOURS

Lectures. Professor ERNST. *Daily, except Saturdays, during October and November.* 40

Laboratory work. Professor ERNST, and Drs. PAGE, STEELE, PERRY, BOUTWELL, and FLOYD. *Two to three hours daily during October and November.* 120

Pathology

WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology.*

ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology.*

FREDERICK H. VERHOEFF, M.D., *Instructor in Ophthalmic Pathology.*

JAMES E. ASH, M.D., *Instructor in Pathology.*

NATHAN C. FOOT, M.D., *Instructor in Pathology.*

ERNEST W. GOODPASTURE, M.D., *Instructor in Pathology.*

JAMES L. STODDARD, M.D., *Research Fellow in Pathology.*

ALBERT A. W. GHOREYEB, M.D., *Austin Teaching Fellow in Pathology.*

Second Year. — The course in Pathology consists of laboratory work and lectures. The basis of the laboratory work is the systematic course in pathological histology. In connection with this there are demonstrations of material bearing on the subjects studied and experiments. In this work the students are divided into small sections. The demonstrations

are given to these sections and the experimental work on anaesthetized animals is carried out by the sections under the direction and supervision of Dr. ASH, who has charge of this branch of the work. The demonstrations and experimental work are given in rooms adjoining the main laboratory which are adequately provided with apparatus. Both the demonstrations and experiments are in connection with the subjects which are being studied. Lectures are given five days in the week, the object of the lectures being rather to expand and coördinate the knowledge which the student is acquiring by his study of material than to impart new information. During the entire period of the course groups of students are sent to the various hospitals to see and assist in post-mortem examinations. Each group prepares microscopical specimens of the tissues from the autopsy, which are studied under direction and described. No attempt is made to separate the subject of Pathology into general pathology and pathological anatomy, but the subject is studied as a whole. In teaching the student is taught methods of work, is given material, and directed; but he is taught to work independently. Tumors and other material coming from the surgical clinics are made full use of in the course.

On Saturdays conferences and recitations are substituted for the regular laboratory work.

In the forenoons of the second and third weeks of December, Assistant Professors TYZZER and FABYAN give a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 75.

SECOND YEAR

HOURS

Lectures. Professor COUNCILMAN. <i>Daily for fourteen weeks, October, November, December (first week only), and January.</i>	84
Laboratory work. Professor COUNCILMAN, Drs. ASH, FOOT, and GOODPASTURE. <i>Three hours daily during the forenoons of October, November, December (first week only), and January.</i>	252

Demonstrations and laboratory work. Asst. Professors TYZZER and FABYAN. <i>Two hours daily, second and third weeks of December.</i>	24
Demonstration of autopsy material. Dr. J. H. WRIGHT. (M.G.H.) <i>One hour a week.</i>	
Neuropathology. Professor SOUTHARD. <i>Afternoons in December.</i>	45
Surgical Pathology. Associate Professor NICHOLS. <i>Afternoons in January.</i>	36

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital, during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

— —, *George Fabyan Professor of Comparative Pathology.*

MARSHAL FABYAN, M.D., *Assistant Professor of Comparative Pathology.*

J. HOWARD BROWN, S.M., *Assistant in Comparative Pathology.*

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 76.

SECOND YEAR

Lectures. Asst. Professor TYZZER. (H.M.S.) <i>One hour daily, second and third weeks of January.</i>	12
Demonstrations and laboratory work. Assistant Professors TYZZER and FABYAN. <i>Two hours daily, second and third weeks in December.</i>	24

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D., *Professor of Preventive Medicine and Hygiene.*

WILSON G. SMILLIE, M.D., *Instructor in Preventive Medicine and Hygiene.*

FRANCIS B. GRINNELL, M.D., *Instructor in Preventive Medicine and Hygiene.*

JOSÉ P. BILL, A.B., *Assistant in Preventive Medicine and Hygiene.*

CHARLES B. SPRUIT, M.D., *Charles Follen Folsom Teaching Fellow in Hygiene.*

Second Year.—The course in Preventive Medicine and Hygiene consists of lectures and demonstrations, laboratory work, sanitary survey, and sanitary excursions. The laboratory work includes the bacteriological and chemical analysis of water and milk, the determination of a carbolic coefficient, making a bacterial vaccine, testing fumigants, chemical and physical examination of the air, etc. Each student is required to make a sanitary survey of some city or town and make a report thereon. The sanitary excursions consist of visits to a vaccine and antitoxin laboratory, to a dairy, etc.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 76.

SECOND YEAR

HOURS

Lectures and demonstrations. <i>One hour, twice a week, second half-year.</i>	32
Laboratory and Sanitary Survey. <i>Two hours, twice a week, second half-year.</i>	64

Pharmacology

REID HUNT, M.D., *Professor of Pharmacology.*

WORTH HALE, M.D., *Assistant Professor of Pharmacology.*

GUSTAVE P. GRABFIELD, M.D., *Teaching Fellow in Pharmacology.*

Courses in pharmacology are given in the second and in the fourth years. In the second year the instruction is given by lectures, recitations, demonstrations, and a laboratory course in which the students have an opportunity of learning the physical and chemical properties of the most important drugs and of performing experiments illustrating the physiological actions of a number of these. A few exercises are given in pharmacy and materia medica, the work consisting of demonstrations and practical exercises. Some attention is also given to toxicology. During

the fourth year an opportunity is offered to students of doing more advanced work in experimental pharmacology.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 76.

SECOND YEAR

Lectures and demonstrations. Professor HUNT and Asst. Professor

HALE. *One hour, three times a week, second half-year.* 48

Laboratory work. *Two hours, twice a week, second half-year.* 32

Medicine

GEORGE G. SEARS, M.D., *Clinical Professor of Medicine.*

DAVID L. EDSALL, M.D., S.D., *Jackson Professor of Clinical Medicine.*

HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

RICHARD C. CABOT, M.D., *Assistant Professor of Medicine.*

ELLIOTT P. JOSLIN, M.D., *Assistant Professor of Medicine.*

FRANCIS W. PEABODY, M.D., *Assistant Professor of Medicine.*

WILLIAM H. ROBEY, Jr., M.D., *Instructor in Medicine.*

WILLIAM H. SMITH, M.D., *Instructor in Medicine.*

EDWIN A. LOCKE, M.D., *Instructor in Medicine.*

FREDERICK T. LORD, M.D., *Instructor in Medicine.*

CHANNING FROTHINGHAM, Jr., M.D., *Instructor in Medicine.*

RALPH C. LARRABEE, M.D., *Instructor in Medicine.*

JOSEPH H. PRATT, M.D., *Instructor in Medicine.*

FRANCIS W. PALFREY, M.D., *Instructor in Medicine.*

WILLIAM D. SMITH, M.D., *Assistant in Medicine.*

HARRY LINENTHAL, M.D., *Assistant in Medicine.*

GERALD BLAKE, M.D., *Assistant in Medicine.*

CHARLES L. OVERLANDER, M.D., *Assistant in Medicine.*

CHARLES H. LAWRENCE, Jr., M.D., *Assistant in Medicine.*

HAROLD BOWDITCH, M.D., *Assistant in Medicine.*

WILLARD S. PARKER, M.D., *Assistant in Medicine.*

ROGER P. DAWSON, M.D., *Assistant in Medicine.*

ALBERT A. HORNOR, M.D., *Assistant in Medicine.*

JAMES P. O'HARE, M.D., *Assistant in Medicine.*

GEORGE R. MINOT, M.D., *Assistant in Medicine.*

LOUIS H. NEWBURGH, M.D., *Alumni Assistant in Medicine.*

GEORGE P. DENNY, M.D., *Alumni Assistant in Medicine.*

PAUL D. WHITE, M.D., *Fellow in Medicine.*

JAMES H. MEANS, M.D., *Henry P. Walcott Fellow in Clinical Medicine.*

The instruction given by the Department of Medicine consists of both clinical and laboratory work. The clinical work is given by means of lectures, amphitheatre clinics, and practical work in the out-patient department and wards of the hospitals. Laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research.

The general plan of the work will be to instruct the students during the second half of the second year in the methods of history-taking, physical examination, clinical laboratory technique, prescription writing and therapeutics, to drill the students in the third year as assistants in the out-patient departments of the hospitals, and in the fourth year to give them continued contact with patients by having them serve as clinical clerks in the hospital wards. Much of this work will be conducted in small sections, while lectures and amphitheatre clinics will be given for the class with the view of presenting to the students a more comprehensive knowledge of medicine. This instruction will be in part at the Harvard Medical School, in part at the Peter Bent Brigham Hospital, the Massachusetts General Hospital, the Boston City Hospital, and several of the special hospitals. In these hospitals an abundant and varied clinical material is available for the conduct of these various exercises.

Second and Third Years.—*Lectures and recitations.* Lectures and recitations on physical diagnosis, therapeutics and selected medical subjects will be given at the Medical School.

Amphitheatre Clinics.—Clinical lectures in which the students are called upon to take an active part will be given in the amphitheatre of the Peter Bent Brigham Hospital, the Massachusetts General Hospital, and the Boston City Hospital.

Clinical Exercises.—Small sections of the class will be drilled thoroughly in the hospitals in the taking of histories, methods of physical examination, and in the examination of urine, blood, sputum, and gastric contents. The section work in physical diagnosis will be conducted in coöperation with the second year course in anatomy in which the anatomical relations of the thoracic and abdominal viscera are studied in relation to surface markings and physical signs.

Laboratory.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 77.

SECOND YEAR

	HOURS
Lectures and recitations on physical diagnosis. Dr. ROBEY. (H.M.S. or P.B.B.H.) <i>Twice a week for six weeks, second half-year.</i>	12
Lectures and recitations on therapeutics and prescription writing. Dr. FROTHINGHAM. (H.M.S. or P.B.B.H.) <i>Twice a week for ten weeks, second half-year.</i>	20
Clinical lectures. Professor SEARS. (B.C.H.) <i>Once a week, second half-year.</i>	16
Lectures. Professor EDSALL. (M.G.H.) <i>Once a week, second half-year.</i>	16
Exercises in sections, conducted by assistants under the general supervision of Dr. ROBEY. <i>Each student has fifty-two exercises, supplemented by demonstrations and recitations for the entire class.</i>	78
Laboratory exercises. Assistant Professor PEABODY and assistants. <i>Three times a week, second half-year. Two hour periods.</i>	96

THIRD YEAR

	HOURS
Lectures on selected topics. Professor CHRISTIAN. (P.B.B.H.) <i>Twice a week, first half-year.</i>	32
Case teaching, exercises and discussion of selected topics. Asst. Professor CABOT. (H.M.S.) <i>Twice a week, second half-year.</i>	32
Lectures on applied therapeutics. Professor SEARS. (H.M.S.) <i>Once a week, second half-year.</i>	16
Amphitheatre clinics. Professor CHRISTIAN. (P.B.B.H.) <i>Once a week, throughout the year.</i>	32
Amphitheatre clinics. Professor EDSALL (M.G.H.) and Professor SEARS. (B.C.H.) <i>Once a week, throughout the year.</i>	32
Exercises in sections as student assistants in the out-patient departments at the M.G.H., B.C.H., or P.B.B.H. <i>Each section has forty-eight exercises of three hours each.</i>	144

FOURTH YEAR

A service of not less than two months as clinical clerk in the medical wards of the M.G.H., B.C.H., or P.B.B.H. is required of each student, except for those who take at least two months in surgery, in which case one month of medicine is required.

Tropical Medicine

RICHARD P. STRONG, M.D., *Professor of Tropical Medicine*, will supervise the instruction in Tropical Medicine. Professors HAROLD C. ERNST, MILTON J. ROSENAU, and HENRY A. CHRISTIAN will constitute an Advisory Board.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 78.

Surgery

The Department of Surgery includes surgery, clinical surgery, operative surgery, surgical pathology, surgical technique, genito-urinary surgery, Roentgenology, and the laboratory of surgical research.

HARVEY CUSHING, M.D., S.D., F.R.C.S., *Moseley Professor of Surgery*.

EDWARD H. NICHOLS, M.D., *Associate Professor of Surgery*.

CHARLES A. PORTER, M.D., *Associate Professor of Surgery*.

PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery*.

J. BAPST BLAKE, M.D., *Assistant Professor of Surgery*.

HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery*.

ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery*.

HUGH CABOT, M.D., *Assistant Professor of Genito-Urinary Surgery*.

DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy and Associate in Surgery*.

JAMES S. STONE, M.D., *Instructor in Surgery*.

ROBERT B. OSGOOD, M.D., *Instructor in Surgery and Orthopedic Surgery*.

WALTER J. DODD, M.D., *Instructor in Roentgenology*.

CHARLES L. SCUDDER, M.D., *Associate in Surgery*.

WILLIAM E. FAULKNER, M.D., *Associate in Surgery*.

FARRAR COBB, M.D., *Lecturer on Surgery*.

JOSHUA C. HUBBARD, M.D., *Associate in Surgery*.

DANIEL F. JONES, M.D., *Associate in Surgery*.

JOHN HOMANS, M.D., *Associate in Surgery*.

SAMUEL J. MIXTER, M.D., *Lecturer on Surgery*.

FRED B. LUND, M.D., *Lecturer on Surgery*.

FREDERIC J. COTTON, M.D., *Lecturer on Surgery*.

FREEMAN ALLEN, M.D., *Lecturer on Anaesthesia*.

FRANK L. RICHARDSON, M.D., *Lecturer on Anaesthesia*.

WALTER M. BOOTHBY, M.D., *Lecturer on Anaesthesia*.

SAMUEL W. ELLSWORTH, M.D., *Assistant in Roentgenology*.

LEROI G. CRANDON, M.D., *Assistant in Surgery*.

WALTER C. HOWE, M.D., *Assistant in Surgery.*
 CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*
 PERCY BROWN, M.D., *Assistant in Roentgenology.*
 HORACE BINNEY, M.D., *Assistant in Genito-Urinary Surgery.*
 BETH VINCENT, M.D., *Assistant in Surgery.*
 J. DELLINGER BARNEY, M.D., *Assistant in Genito-Urinary Surgery.*
 CONRAD JACOBSON, M.D., *Assistant in Surgery.*
 WYMAN WHITTEMORE, M.D., *Assistant in Surgery.*
 ALBERT EHRENFRIED, M.D., *Assistant in Surgery.*
 GEORGE W. HOLMES, M.D., *Assistant in Roentgenology.*
 EDWARD P. RICHARDSON, M.D., *Assistant in Surgery.*
 IRVING J. WALKER, M.D., *Assistant in Surgery.*
 HALSEY B. LODER, M.D., *Assistant in Surgery.*
 ERNEST G. CRABTREE, M.D., *Assistant in Genito-Urinary Surgery.*
 ERNEST GRAY, M.D., *Assistant in Surgery.*
 ELLIOTT C. CUTLER, M.D., *Alumni Assistant in Surgery.*
 HARRY F. HARTWELL, M.D., *Fellow in Surgery.*
 MARK H. WENTWORTH, M.D., *Fellow in Surgery.*
 WILLIAM J. BRICKLEY, M.D., *Fellow in Surgery.*
 SAMUEL C. HARVEY, M.D., *Arthur Tracy Cabot Fellow in Charge of the
 Laboratory of Surgical Research.*

MACIVER WOODY, M.D., *Austin Teaching Fellow in Surgery.*

Instruction will be given by lectures, clinical lectures, demonstrations, and recitations, together with section teaching in the laboratories of surgical pathology and of surgical research, and in the wards and out-patient departments of the hospitals. Elective courses will be given in the laboratories of the Harvard Medical School, and in the wards and operating rooms of the hospitals.

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department. Arrangements can be made for such instruction with the Instructor in Roentgenology.

Second Year. — The course in surgery begins in January of the second year. The afternoons in January will be given to surgical pathology, and to surgical therapeutics on alternate days. Laboratory exercises in surgical pathology will be given three days a week, in which will be studied the healing of wounds, fractures, diseases of the bones and joints, and such aspects of pathology as are of special surgical importance. Two clinical lectures a week, illustrating the lesions studied in the

laboratory of surgical pathology, will be given at the Boston City Hospital. On two days a week the class will be divided into two sections for practical exercises in surgical operative therapeutics.

The systematic course of lectures, clinical lectures, demonstrations and recitations will begin in February of the second year—one lecture, one recitation and two clinical lectures a week. In the first two weeks the lectures and clinics will be devoted to surgical therapeutics. The general principles of surgery, beginning with trauma, hemorrhage, sepsis, etc., will be taken up in successive weeks, and illustrated by clinical lectures and demonstrations, until the end of the second half of the second year. During the first nine weeks of the second half of the second year, beginning February 1, section work in surgical technique will be given. Each student will have twelve laboratory exercises of two hours each, on the application of bandages and surgical apparatus, and the preparation and use of surgical material and dressings. Additional exercises will be given in sections, in the hospitals, on the practical application of bandages and surgical appliances. This course in surgical technique is designed to prepare the student for the required two months' "dresser" service in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. Satisfactory service in this capacity during the third year is a necessary requirement for the degree.

Third Year.—During the third year, one lecture, one recitation, and two clinical lectures a week will be given throughout the year. On Wednesday a lecture will be given at the Brigham Hospital at 12.30 P.M., for the whole class. On Tuesday at 12 M. two clinical lectures will be given, one at the Boston City Hospital and one at the Massachusetts General Hospital, either of which may be attended by the student having section work at one or the other hospital. During May twelve surgical hours, in morning and in afternoon exercises, will be devoted to genito-urinary surgery, and sections of the class will be assigned to short terms of service in the Genito-Urinary Departments.

Fourth Year.—Opportunity is afforded in the fourth-year elective courses for practical work in the wards and operating rooms of the hospitals, P.B.B.H., M.G.H., B.C.H., and C.H. For a description of the fourth-year courses offered by this department, see page 81.

SECOND YEAR

HOURS

Laboratory course in Surgical Pathology. Associate Professor NICHOLS (H.M.S.) <i>Twelve three-hour exercises during January.</i>	36
Laboratory course in Surgical Therapeutics. Professor CUSHING and Associates. (H.M.S.) <i>Eight three-hour exercises during January.</i>	24

- Clinical lectures in connection with the course in Surgical Pathology. Associate Professor NICHOLS. (B.C.H.) *Eight exercises during January.* 8
- Clinical lectures in Surgical Therapeutics. Professor CUSHING. (P.B.B.H.) *Four exercises during January.* 4
- Laboratory course in Surgical Therapeutics. Associate Professor PORTER and Assistant Professor LOTHROP and assistants. *Eighteen two-hour exercises for each student during the second half of the second year.* 36
- Lectures and demonstrations. Professor CUSHING, Associate Professors NICHOLS and PORTER, and Associates. (H.M.S.) *Once a week, second half-year.* 16
- Recitations. Assistant Professors LOTHROP and GREENOUGH. *Once a week, second half-year.* 16
- Clinical lectures. Associate Professor PORTER and Assistant Professor GREENOUGH (M.G.H.), Associate Professor NICHOLS and Assistant Professors LOTHROP and BLAKE (B.C.H.). *Twice a week, second half-year.* 32

THIRD YEAR

- Lectures and demonstrations. Professor CUSHING, Associate Professors PORTER and NICHOLS, and Associates. *Once a week, first and second half-year.* 32
- Clinical lectures. Professor CUSHING. (P.B.B.H.) *Once a week, first and second half-year.* 32
- Clinical lectures given contemporaneously at the M.G.H. and B.C.H. Associate Professor PORTER and Assistant Professor GREENOUGH (M.G.H.) or Associate Professor NICHOLS and Assistant Professors LOTHROP and BLAKE (B.C.H.). *Once a week, first and second half-year.* 32
- (During May of the third year, four morning and eight afternoon exercises will be devoted to genito-urinary surgery. Assistant Professor HUGH CABOT. (H.M.S. and M.G.H.))
- Recitations. Assistant Professors LOTHROP and GREENOUGH. (H.M.S.) *Once a week, first half-year.* 16
- Case teaching. Assistant Professor BLAKE. (H.M.S.) *Once a week, beginning February 1st.* 16
- Out-patient Surgical Dresser Service. Exercises in sections. Each student has forty-eight exercises of three hours each. 144

FOURTH YEAR

A service of not less than two months as clinical clerk in the surgical wards of the M.G.H., B.C.H., or P.B.B.H., is required of each student, except for those who take at least two months in Medicine, in which case one month of surgery is required.

Orthopædic Surgery

ROBERT W. LOVETT, M.D., *John B. and Buckminster Brown Professor of Orthopedic Surgery.*

ELLIOTT G. BRACKETT, M.D., *Associate in Orthopedic Surgery.*

AUGUSTUS THORNDIKE, M.D., *Associate in Orthopedic Surgery.*

ROBERT SOUTTER, M.D., *Instructor in Orthopedic Surgery.*

ROBERT B. OSGOOD, M.D., *Instructor in Surgery and Orthopedic Surgery.*

HENRY J. FITZSIMMONS, M.D., *Fellow in Orthopedic Surgery.*

Third Year. — Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachusetts General Hospitals.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 82.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Professor LOVETT, and Drs. BRACKETT, A. THORNDIKE, SOUTTER, and OSGOOD. (H.M.S. and Ch.H.) *Every other week, second half-year.* (Transferred to fourth year, 1916-17.)

8

Obstetrics and Gynaecology

WILLIAM P. GRAVES, M.D., *Professor of Gynaecology.*

FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology.*

MALCOLM STORER, M.D., *Instructor in Gynaecology.*

ERNEST B. YOUNG, M.D., *Instructor in Gynaecology.*

HOWARD T. SWAIN, M.D., *Instructor in Obstetrics.*

JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*

NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*

ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*

HENRY T. HUTCHINS, M.D., *Assistant in Gynaecology.*

ROBERT M. GREEN, M.D., *Assistant in Obstetrics and Gynaecology.*

RAYMOND S. TITUS, M.D., *Alumni Assistant in Obstetrics.*

RICHARD G. WADSWORTH, M.D., *Fellow in Gynaecology.*

JOHN T. WILLIAMS, M.D., *Fellow in Gynaecology.*

JAMES L. HUNTINGTON, M.D., *Fellow in Gynaecology.*

JOHN B. SWIFT, M.D., *Fellow in Obstetrics.*

FREDERICK C. IRVING, M.D., *Fellow in Obstetrics.*

FOSTER S. KELLOGG, M.D., *Fellow in Obstetrics.*

FRANK A. PEMBERTON, M.D., *Fellow in Gynaecology.*

OBSTETRICS

Third Year.—Instruction is given by lectures, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 83.

SECOND YEAR

HOURS

Lectures. Assistant Professor NEWELL. (H.M.S.) *Once a week, second half-year.*

16

THIRD YEAR

Lectures and conferences on Obstetrics. Assistant Professor NEWELL and assistants. (H.M.S.) *Twice a week, first half-year. Once a week, second half-year.*

48

Practical instruction in Clinical Obstetrics. By members of the Department. *Throughout the year.*

GYNAECOLOGY.

Third Year.—Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 83.

THIRD YEAR

HOURS

Lectures. Professor GRAVES. (H.M.S.) *Every other week, second half-year.*

8

Clinical exercises. Professor GRAVES, and Drs. HUTCHINS, WADSWORTH and PEMBERTON (F.H. for W.), Dr. STORER (B.D.), and Drs. MASON, R. M. GREEN, WILLIAMS, and HUNTINGTON (B.C.H.). *In sections, throughout the year. Each student attends six exercises.* (Transferred to fourth year, 1916-17.)

18

Pædiatrics

- JOHN L. MORSE, M.D., *Professor of Pædiatrics.*
 EDWIN H. PLACE, M.D., *Assistant Professor of Pædiatrics.*
 CHARLES H. DUNN, M.D., *Instructor in Pædiatrics.*
 FRITZ B. TALBOT, M.D., *Instructor in Pædiatrics.*
 MAYNARD LADD, M.D., *Instructor in Pædiatrics.*
 PHILIP H. SYLVESTER, M.D., *Instructor in Pædiatrics.*
 HENRY I. BOWDITCH, M.D., *Clinical Instructor in Pædiatrics.*
 ARTHUR A. HOWARD, M.D., *Clinical Instructor in Pædiatrics.*
 WILLIAM W. HOWELL, M.D., *Assistant in Pædiatrics.*
 RICHARD M. SMITH, M.D., *Assistant in Pædiatrics.*
 JAMES H. YOUNG, M.D., *Assistant in Pædiatrics.*
 HAROLD A. GALE, M.D., *Fellow in Pædiatrics.*
 THEODORE W. ELY, M.D., *Fellow in Pædiatrics.*
 RICHARD S. EUSTIS, M.D., *Fellow in Pædiatrics.*
 JOSEPH I. GROVER, M.D., *Fellow in Pædiatrics.*
 ROBERT B. HUNT, M.D., *Fellow in Pædiatrics.*
 KARLTON G. PERCY, M.D., *Fellow in Pædiatrics.*
 EDWIN T. WYMAN, M.D., *Fellow in Pædiatrics.*

Third Year. — The material for instruction is drawn from the Infants' Hospital, the Children's Hospital, the South Department of the Boston City Hospital, and from the Children's Departments of the Massachusetts General Hospital and the Boston Dispensary. Lectures are given on certain selected topics preparatory for the clinical teaching. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital. Sectional teaching at the bedside and in the out-patient departments of the various hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. By means of the very large amount of Pædiatric material in the contagious wards, the general subject of Pædiatrics as connected with contagious diseases is especially explained and

illustrated. Exercises in case teaching are given in the latter part of the year preparatory for the examination. The students are also given instruction in lumbar puncture and in various laboratory procedures especially applicable to children. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

THIRD YEAR

HOURS

Lectures. Professor MORSE and assistants. (H.M.S.)	<i>Once a week, throughout the year.</i>	32
Clinical lectures. Professor MORSE and assistants. (Ch.H.)	<i>Once a week, throughout the year.</i>	32
Section Teaching. (Ch.H., I.H., M.G.H., B.D., and S.D.B.C.H.)	<i>Throughout the year. Each student attends twenty-four exercises during the year.</i>	72

Dermatology and Syphilis

ABNER POST, M.D., *Professor of Syphilis.*

CHARLES J. WHITE, M.D., *Assistant Professor of Dermatology.*

C. MORTON SMITH, M.D., *Instructor in Syphilis.*

FREDERICK S. BURNS, M.D., *Instructor in Dermatology.*

HENRY D. LLOYD, M.D., *Assistant in Syphilis.*

E. LAWRENCE OLIVER, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year.—Section work in clinical dermatology at the Massachusetts General Hospital throughout the year, each section receiving instruction for two weeks from 9 A.M. to 12 P.M. daily.

In April and May the class meets for eight hours at the Medical School, the instruction consisting of lectures covering all the common, important diseases illustrated by the epidiascope.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 84.

SECOND YEAR

HOURS

Clinical lectures. Assistant Professor WHITE. (M.G.H.)	<i>Once a week, second half-year.</i>	16
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THIRD YEAR

Lectures on the Anatomy and Therapeutics of the Skin. (Illustrated.) Assistant Professor WHITE. (H.M.S. and M.G.H.)	<i>Every other week, second half-year.</i>	8
Section work. Clinical Dermatology. Drs. BURNS and OLIVER. (M.G.H.)	<i>Each student attends twelve exercises.</i>	36

SYPHILIS

Third Year. — Lectures and clinical instruction are given at the Massachusetts General Hospital.

THIRD YEAR		HOURS
Lectures. Professor Post. (H.M.S.)	<i>Every other week, second half-year.</i>	8
Clinical lectures. Professor Post and Dr. SMITH. (M.G.H.)	<i>Once a week, September 28 to November 23.</i>	8
Clinical exercises. Professor Post and Dr. SMITH. (M.G.H.)	<i>Each student attends six exercises, in sections.</i>	18

Diseases of the Nervous System

The Department of Diseases of the Nervous System is composed of the sub-departments of Neuropathology, Neurology, and Psychiatry.

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

EDWARD W. TAYLOR, M.D., *Assistant Professor of Neurology.*

HERMAN M. ADLER, M.D., *Assistant Professor of Psychiatry.*

GEORGE A. WATERMAN, M.D., *Instructor in Neurology.*

JAMES B. AYER, M.D., *Instructor in Neurology and Assistant in Neuropathology.*

EDWARD T. GIBSON, M.D., *Instructor in Psychiatry.*

GEORGE CLYMER, M.D., *Assistant in Neurology.*

ALBERT W. STEARNS, M.D., *Assistant in Psychiatry.*

HAROLD I. GOSLINE, M.D., *Assistant in Neuropathology.*

HARRY C. SOLOMON, M.D., *Assistant in Neuropathology.*

NEUROPATHOLOGY

Second Year. — The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the pathological physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 85.

SECOND YEAR		HOURS
Lectures. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>		12
Laboratory work. Professor SOUTHARD and assistants. <i>Two hours daily, afternoons in December.</i>		24
Written and practical tests. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>		9
Demonstrations at State institutions, voluntary. Special.		

NEUROLOGY

Second Year.—Clinical lectures are given at the Massachusetts General Hospital to the entire class, once a week throughout the second half of the year. The object of the course is to give the student a general knowledge of the principles of diagnosis and treatment of diseases of the nervous system as a preparation for later work. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of specimens and photographs. (c) Study of cases as they present themselves at the out-patient department of the hospital and in the wards

Third Year.—Clinical lectures are given during certain months of the third year at the Massachusetts General Hospital. The members of the class are also required to take practical work in the out-patient department in sections throughout the year. This work is practical in character and serves to bring the student into immediate contact with patients.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 86.

SECOND YEAR		HOURS
Clinical lectures. Assistant Professor TAYLOR. (M.G.H.) <i>Once a week, second half-year.</i>		16

THIRD YEAR

Clinical lectures. Assistant Professor TAYLOR. (M.G.H.) <i>Once a week, November 23 to December 31 and during May.</i>	8
Section teaching. Each student attends twelve exercises in Neurology.	36

PSYCHIATRY

THIRD YEAR

During January, February, March, and April a clinical lecture will be given once a week at the Psychopathic Hospital. The different forms of mental disease will be discussed and patients exhibiting the symptoms under consideration will be presented.

During the second half-year a series of eight lectures will be given at the Harvard Medical School. This course is designed to present to the students the modern points of view in regard to insanity and the psychoneuroses and the mental diseases of adolescence.

Supplementary instruction is given to the class in small sections in the wards and out-patient department of the Psychopathic Hospital. Each student will examine and report on at least one case of insanity or mental defect.

THIRD YEAR

HOURS

Lectures. Assistant Professor ADLER. (H.M.S.) <i>Every other week, second half-year.</i>	8
Clinical lectures. Assistant Professor ADLER. (P.H.) <i>Once a week, January, February, March, and April.</i>	16
Section teaching. Each student attends twelve exercises in Psychiatry.	36

Ophthalmology

———, *Williams Professor of Ophthalmology.*

ALEXANDER QUACKENBOSS, M.D., *Assistant Professor of Ophthalmology.*

HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*

WILLIAM N. SOUTER, M.D., *Instructor in Ophthalmology.*

FRED M. SPALDING, M.D., *Instructor in Ophthalmology.*

GEORGE S. DERBY, M.D., *Instructor in Ophthalmology.*

Instruction in Ophthalmology consists of lectures at the Medical School in the third year and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary in the fourth year.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 87.

THIRD YEAR

HOURS

Lectures. (H.M.S.) <i>Every other week, first half-year.</i>	8
Clinical exercises. Drs. QUACKENBOSS, HASKELL, DERBY, and SPALDING. (E. and E.I.) <i>In sections, first half-year. Twelve exercises for each student. (Transferred to fourth year in 1916-17.)</i>	36

Otology

———, *Walter Augustus Lecompte Professor of Otology.*

EUGENE A. CROCKETT, M.D., *Assistant Professor of Otology.*

PHILIP HAMMOND, M.D., *Associate in Otology.*

WILLIAM F. KNOWLES, M.D., *Instructor in Otology.*

DAVID H. WALKER, M.D., *Instructor in Otology.*

CALVIN B. FAUNCE, Jr., M.D., *Instructor in Otology.*

FRANCIS P. EMERSON, M.D., *Assistant in Otology.*

GEORGE H. POWERS, M.D., *Assistant in Otology.*

GEORGE L. TOBEY, Jr., M.D., *Assistant in Otology.*

OLIVER A. LOTHROP, M.D., *Assistant in Otology.*

HENRY P. CAHILL, M.D., *Assistant in Otology.*

Third Year. — Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 87.

THIRD YEAR

HOURS

Lectures. Assistant Professor CROCKETT. (H.M.S.) *Every other week, first half-year.*

8

Clinical exercises in sections. (E. and E.I.) *Every student attends twelve exercises, second half-year.* (Transferred to fourth year, 1916-17.)

18

Laryngology and Rhinology

ALGERNON COOLIDGE, M.D., *Professor of Laryngology.*

HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology.*

J. PAYSON CLARK, M.D., *Instructor in Laryngology.*

ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology*

JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*

HARRY A. BARNES, M.D., *Instructor in Laryngology.*

JOHN H. BLODGETT, M.D., *Instructor in Laryngology.*

GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*

D. CROSBY GREENE, M.D., *Fellow in Laryngology.*

Third Year. — Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has eight lectures during the first half-year. For the practical work at the Massachusetts General Hospital and the Boston City Hospital, the class is divided into small sections.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 87.

THIRD YEAR

HOURS

Lectures. Professor COOLIDGE, assisted by Drs. GOODALE, MOSHER, and WRIGHT. (H.M.S.) *Every other week, first half-year.*

8

FOURTH YEAR

Clinical exercises. Professor COOLIDGE, Assistant Professor MOSHER, and Drs. CLARK, BARNES, GREENE (M.G.H.), COFFIN, and BLODGETT (B.C.H.). *Thirty-six hours for each student.*
(Transferred to fourth year in 1916-17.)

36

FOURTH-YEAR ELECTIVES *

The fourth year is devoted to elective courses, with the limitation that each student is required to take not less than three months in courses in which he serves as medical or surgical clinical clerk in hospital wards (Medicine 1, 2, 3 and 4; Surgery 1, 2, and 3), and one month each in Pediatrics and in Obstetrics, except in the case of such students who, having attained a high standing in their Medical School work, desire to devote the whole or a part of their fourth year to one subject of study. To such students, on the recommendation of a Department head, permission to devote the whole or a part of the fourth year to one subject of study may be granted by vote of the Faculty Council if a petition to this effect is presented with the choice of electives.

In Medicine, Surgery, Pediatrics and Obstetrics summer courses are provided under the administration of the Graduate School of Medicine by taking which students may be excused, with the approval of the Head of the Department concerned and of the Faculty Council, from taking the equivalent required work of the fourth year, and be granted the privilege of taking in place of such courses additional elective courses.

On Fridays throughout the year afternoon work in all courses will be replaced by class exercises.

The electives of the fourth year are given as half-courses, quarter-courses, and full courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of one hundred and twenty-five hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

The final choice of electives must be left at the Dean's office on or before May 20. No changes in electives will be allowed after the final assignments are made, except (1) for urgent reasons, when after

* In the year 1916-17 the fourth-year curriculum will be modified so as to require of all students two months in medicine, one month in surgery (or one month in medicine and two in surgery), one month in pediatrics, one month in obstetrics, one month in electives, and two months divided between anatomy and the various specialties.

the Secretary has first been consulted a petition approved in writing by the instructors concerned and presented to the Administrative Board not less than three weeks before the beginning of the first elective month involved has been granted, and (2) when a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, in which case he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

No student may select a fourth-year elective, covering a subject still owing in the work of the first three years, without the consent of the head of the Department in writing.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

ANATOMY.

[Under this Heading are included the Courses in Anatomy, Comparative Anatomy, Embryology, and Histology.]

Anatomy I. Assistant Professor CHEEVER. Half-courses, afternoons, October and November, February and March.

This is a course in general, applied and surgical anatomy designed to emphasize and explain such parts of general anatomy as are of practical importance. Less important details are studied briefly or omitted altogether, according to their deserts, but ample opportunity is given to the student who desires it to review the chief facts of general anatomy or to pay especial attention to regions in which he is interested.

Instruction is by demonstrations, dissection, the study of frozen sections, and specimens and informal quizzes. The greatest importance is attached to the verification by the student in his own dissection of the facts presented by the instructor.

To enable the course to be satisfactorily adjusted to courses in other departments, a limited number of students may be permitted, on con-

sultation with the instructor, to take one month with the first section and the other month with the second section.

Note.—No one can take this course who has not passed his first and second-year anatomy.

Anatomy 2. Advanced Vertebrate Embryology. Associate Professor

LEWIS. Whole course, all day, February and March, April, and May.

An elementary knowledge of embryology, such as may be obtained from first-year Embryology is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

This course consists chiefly of laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction, will be required.

Special organs or groups of organs may be studied according to the special needs of the students.

The *Manual of Human Embryology*, edited by Keibel and Mall, will be used as a text-book and original publications will be consulted. At the discretion of the instructor students may have access to the extensive embryological collection and to the collection of models, many of which were made in the Harvard Laboratory.

Anatomy 3. Advanced Histology. Associate Professor BREMER. Whole course, all day, two months, February and March.

This course includes the study of the genesis and adult histology of special organs, or groups of organs, according to the needs of the individual student, and the principal methods of histological technic, used in such study.

PHYSIOLOGY.

Physiology 1. Half-courses, or quarter-courses, forenoons, afternoons, or all day, first half-year; afternoons, second half-year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to

work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Following are some suggestions for research which may readily be conducted in the Laboratory :—

Quantitative studies of human sensory and motor thresholds under various conditions, including the effects of stimulants and narcotics; the effects of toxins and poisons on the nervous system in experimental animals; the excitability of the "centers" of the medulla under various conditions. Studies in the physiology of the central nervous system. Studies of problems in the movements of the stomach and intestines, and in the activities of glands of internal secretions.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, ear, and upper respiratory tract. Afternoons, except Friday and Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons or afternoons, February and March.

These electives will be of five kinds, including (a) instruction in methods of diagnosis, depending upon bacteriological procedures; (b) instruction in methods of bacteriological diagnosis in use in health board laboratories, including the examination of waters and soils; (c) instruction in methods of opsonic-index work, with practical application; (d) special studies of spirochaetes and trypanosomes (open during both the first and second half-years, but should be taken for at least two months); (e) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

Note. — Under special conditions, electives begun before may be continued through April and May.

PATHOLOGY.

Pathology 1. Associate Professor F. B. MALLORY. Half-courses or quarter-courses, all day or forenoons, throughout the year.

This course is given in the pathological laboratory of the Boston City Hospital. Every student must furnish his own microscope.

The work consists of attendance at autopsies and of the study of the tissues obtained at them. In addition much time is devoted to the microscopic study of the most interesting lesions which have been collected at the laboratory during the last eighteen years. In this way the special pathology of the liver, kidneys, heart, blood vessels, lungs, and other organs is covered and the student is encouraged to correlate what he sees with the clinical experience which he has already received.

Pathology 2. Assistant Professor J. H. WRIGHT. Half-courses, all day, December, January, February and March.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Each course limited to four men, and will not be given as quarter-courses for two months.

Pathology 3. Half-courses, mornings or afternoons, second half-year.

This course is given in the laboratory of pathology, H.M.S., and is open to men acceptable to the head of the department who wish to take up research work in pathological anatomy or in experimental pathology. The problems will be arranged by consultation between students and the head of the department. Not more than two men will be received in any one course.

Pathology 4. Half-courses, all day, February, March, April and May.

Professor W. T. COUNCILMAN and Instructor.

This course will consist in the general work of the Pathological Laboratory of the Peter Bent Brigham Hospital, emphasis being placed upon the inter-relation of clinical and pathological work. Limited to two men in each course.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microorganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Research. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

PREVENTIVE MEDICINE AND HYGIENE

Preventive Medicine and Hygiene 1. Quarter-course, afternoons, March.

Each student will be required to make a sanitary survey of some village or town.

The survey will include :

1. *Field work.*—The student will inspect the water-shed, the dairies, markets, schools and factories, the method of sewage and garbage disposal, sanitary nuisances, etc.
2. *Laboratory work.*—Complete examination of the water and milk supply of the town, study of the vital statistics, etc., with interpretation and criticism of conditions found, and suggestions for improvement.

Each course is limited to ten men. Students must see the instructor in charge before enrolling in this course. Longer courses in special work by arrangement.

PHARMACOLOGY.

Pharmacology 1. Half-course, all day, or quarter-courses, mornings or afternoons, in January.

The work in this course will consist in the repetition of important experiments, the reading of selected original papers and the preparation of reports; opportunity will be given for both experimental and chemical work.

MEDICINE.

Medicine 1. Full courses, all day, throughout the year.

This work will be given at the Massachusetts General Hospital. Each course will be limited to ten students. Students will serve as clinical clerks in the wards of the hospital and will have opportunity to systematically study the patients. Work in the wards may be supplemented by work in the out-patient department. Ample facilities will be furnished for the laboratory investigation of the patients. This course will be given under the supervision of Professor EDSALL and Assistant Professor CABOT. Each student electing the course must take it for at least two consecutive months unless he has already had a course in Medicine 2 or 3, in which case he may take one or more further months in this course.

Medicine 2. Full courses, all day, throughout the year.

This work will be given at the Peter Bent Brigham Hospital. Each course will be limited to eight students. Students will serve as clinical clerks in the wards of the hospital and will have opportunity to study systematically the patients. Work in the wards may be supplemented by work in the out-patient department. Ample facilities will be furnished for laboratory investigation of patients. This course will be given under the supervision of Professor CHRISTIAN and Dr. FROTHINGHAM. Each student electing the course must take it for at least two consecutive months unless he has already had a course in Medicine 1 or 3, in which case he may take one or more additional months in this course.

Medicine 3. Full courses, all day, throughout the year.

This work will be given at the Boston City Hospital. Each course will be limited to six students. Students will serve as clinical clerks in the wards of the hospital and have opportunity to study systematically the patients. Work in the wards may be supplemented by work in the out-patient department. Facilities will be furnished for laboratory investigation of patients.

The courses will be given under the supervision of Professor SEARS. Each student electing the course must take it for at least two consecutive months, unless he has already had a course in Medicine 1 or 2, in which case each student may take one or more additional months in this course.

Medicine 4. Half-courses, all day, throughout the year.

This course is intended for students who elect two months of surgery and one month of medicine to fulfil the requirement of three months' service as clinical clerk in hospital wards. Students will serve as clinical clerks in the wards of a hospital. Students will be assigned to the hospitals in which there are vacancies in accordance with the limitation of numbers allowed in each of the electives, Medicine 1, 2, and 3.

Medicine 5. Half-course, forenoons, February and March.

This work will be given at the Massachusetts General Hospital and will be limited to four students. Students are advised to complete courses in Medicine 1, 2, 3, or 4 before taking this course. The work will consist of the study of cardiac cases by means of various graphic methods, with discussion of cardiac disease in relation to information yielded by the application to individual cases of such graphic methods of study. This course will be given by Dr. J. H. PRATT.

Medicine 6. Quarter-course, forenoons, in April.

Course same as Medicine 5 except for shorter period.

TROPICAL MEDICINE*

Tropical Medicine 1. General Course in Tropical Medicine. Quarter-course, mornings, February.

Provided arrangements for clinical work in tropical diseases are completed by that time, this course will consist of lectures, laboratory work, and bedside demonstrations upon as many of the important tropical diseases as it is possible to consider in the time allotted to the course.

A course in Helminthology may be obtained by special arrangement.

Tropical Medicine 2. Tropical Entomology. Quarter-course, afternoons, February.

This course will include general lectures on the structure and classification of the Arthropoda, followed by a more detailed account of the Arthropoda known to be concerned and likely to be concerned in the transmission of human and animal diseases or in the inflictions of local injuries and physiological disturbances.

Laboratory work and demonstrations will also constitute an important feature and will provide, as far as is possible during the time allotted, for training in the dissection of insects, in the principal methods of studying their life histories and habits, and in their identification by means of dichotomic tables and from technical descriptions.

Tropical Medicine 3. Tropical Protozoölogy. Quarter-course, mornings, November.

The course in Protozoölogy will include a general discussion of the morphology and life history of the more important human protozoan parasites, such as the amoebae, flagellata (trypanosomes, the parasites of kala azar and oriental sore), sporozoa (malarial parasites) and ciliata. Their relations to their definitive and to intermediate hosts will also be dis-

* Courses in Tropical Medicine are offered subject to modification or withdrawal; students choosing these courses may in that event make other elections.

ussed, together with phenomena of immunity. Methods for the cultivation of certain parasites and suitable procedures for collecting, staining, and mounting will be discussed as far as possible in the time allotted.

This course will not be given to less than six students.

Tropical Medicine 4. Tropical Pathology. Quarter-course, afternoons, November.

This course will include the study of the macroscopic and histological lesions of as many of the important tropical diseases as it is practicable to consider in the time allotted to the subject.

This course will not be given to less than six students.

Tropical Medicine 5. Tropical Bacteriology. Quarter-course, afternoons, January.

This course will include the identification of the etiological factor and the diagnosis of the infection by laboratory methods, such as cultures, serum reactions, and the inoculation of animals in as many of the important tropical diseases as the time allotted to the subject will allow for.

This course will not be given to less than six students.

Tropical Medicine 6. Clinical Laboratory Work in Tropical Diseases. Quarter-course, afternoons, April.

This course will be practical and will cover methods of obtaining and the technic of examination of materials from the more important tropical infections where a diagnosis may be made or aided by the microscope.

This course will not be given to less than six students.

ROENTGENOLOGY

Roentgenology 1. Quarter-courses, mornings, throughout the year.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 8.30 A.M. to 12.30 P.M. at the Massachusetts General Hospital by Dr. WALTER J. DODD.

PEDIATRICS.

Pediatrics 1. Half-courses, all day, throughout the year.

The work will consist of instruction in the wards and out-patient departments of the Children's Hospital, of the Infants' Hospital, of the Children's Department of the Massachusetts General Hospital, in the contagious wards of the South Department of the Boston City Hospital, at the Children's Tubercular clinic of the Burroughs Place Dispensary, and in the Children's wards and out-patient department of the Boston Dispensary. The

students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be taken up with teaching in the various wards and out-patient departments. Two lectures on the significance of the ear in early life will be given in the wards of the Infants' Hospital. Especial instruction will be given at the Infants' Hospital in the examination and preparation of milk modifications in connection with substitute feeding, and here instruction will also be given in connection with the subject of wet nurses.

One afternoon in each week will be spent at the South Department. Here instruction in general Pediatrics as connected with contagious diseases will be demonstrated, and whenever possible the technic of intubation will be shown.

Each student will have cases assigned to him on two afternoons of each week when in the early part of the afternoon instruction in physical examination will be given by the various instructors and in the latter part of the afternoon these cases will be discussed with one of the senior members of the department. Instruction will also be given in the laboratory of the Children's Hospital in clinical work connected with lumbar puncture and with the examination of the spinal fluid, blood, and urine.

The class will be taken to a model farm where everything practical pertaining to the milk supply for infants and young children will be taught. Practical instruction will also be given in a research milk laboratory in the writing of prescriptions and in the routine of laboratory work.

The examination will be an oral one, held by the Professor of Pediatrics.

SURGERY.

The electives offered by the Department of Surgery consist of half-courses (occupying the whole day for one month) and quarter-courses (either mornings or afternoons for one month). They are so arranged that they may be themselves combined in different groups or taken in combination with quarter-courses offered by other departments. No student will be permitted to take more than four half-courses in surgery without special permission of the head of the department.

1	2	3	4	5	6
All day. 1 month. P.B.B.H. Dresser. Practical Surgery Oct. to May.	All day 1 month. B.C.H. (a) Clinical and Labora- tory. Dr. Nichols (b) Dresser Service. B.C.H. (c) Dresser Service. Relief Station. Oct. to May.	All day. 1 month. M.G.H. Dresser. Practical Surgery. Oct. to May.	Afternoons. 1 month. Children's Hospital. General Surgical Service. Dresser. Oct. to May.	Forenoons. 1 month. B.C.H. G. U. Sur- gery. Thorndike. Oct. to May.	Forenoons. 1 month. M.G.H. G. U. Sur- gery. H. Cabot. Oct. to May.
Half- course.	Half- course.	Half- course.	Quarter- course.	Quarter- course.	Quarter- course.

Surgery 1. Clinical Clerk Service at the Brigham Hospital. Half-
courses, all day, for one month, throughout the year. Peter Bent
Brigham Hospital: Dr. HARVEY CUSHING.

Students will serve as assistants to the hospital staff in the routine ward,
operating room, and laboratory work of the hospital. The course is
limited to six students.

Surgery 2. Clinical Work at the Boston City Hospital.

(a) Clinical and laboratory work, half-courses, all day, except Saturday
and Sunday, for one month throughout the year. Associate Professor
E. H. NICHOLS and Dr. H. B. LODER. Boston City Hospital and Labora-
tory of Surgical Pathology. Includes work at the Boston City Hospital
mornings, and laboratory work at the Harvard Medical School afternoons.
(b) Dresser's Service at the Boston City Hospital, half-courses, under
the direction of Assistant Professor J. B. BLAKE, all day, for a month,
throughout the year, at the Boston City Hospital, under hospital adminis-
tration. (c) Dresser's Service at the Haymarket Square Relief Station,
half-courses, all day, for one month, throughout the year, under the direc-
tion of Assistant Professor J. B. BLAKE, under hospital administration:
limited to four students.

Surgery 3. Clinical Clerk Service at the Massachusetts General Hospital. Half-courses, all day, for one month, throughout the year. Massachusetts General Hospital. Associate Professor C. A. PORTER and Dr. C. L. SCUDDER.

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to four students.

Surgery 4. Clinical Clerk Service at the Children's Hospital. Quarter-courses, afternoons, for one month, throughout the year. Children's Hospital. General Surgery. Dr. JAMES S. STONE.*

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to four students.

Surgery 5. Genito-Urinary Surgery. Half-courses, all day, or quarter-courses, forenoons, for one month, throughout the year. Boston City Hospital. Dr. PAUL THORNDIKE.

Instruction will consist of ward work, taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases and seeing the end results. Conferences with the students will be held from time to time.

With consent of Dr. Thorndike a limited number of students may take this course as a half-course, all day, devoting the afternoon to the study of ward cases.

Surgery 6. Genito-Urinary Surgery. Quarter-courses, forenoons, for one month, throughout the year. Dr. HUGH CABOT. Massachusetts General Hospital.

The student will be assigned as assistant in the clinic and will take part in the routine work, case-taking, examination of patients, diagnosis and treatment. Operations and the after-care of major operative cases will be followed in the wards. Instruction will be given in cystoscopy and in laboratory methods of diagnosis.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Quarter-courses, afternoons, October, December, February, and April.

The fourth-year elective course is planned to continue the third-year required course, and is comprehensive in character. The exercises are

* This course can be taken in conjunction with *Orthopedic Surgery 2*, mornings for one month, to make a full half-course of practical dresser service at the Children's Hospital. In this way the student's whole day for a month will be spent at the Children's Hospital.

clinical, and are given in the orthopedic clinics and wards of the Children's Hospital and of the Massachusetts General Hospital. The instruction is given daily each afternoon in the week, and is so arranged that opportunities are given for the examination of cases, with systematic note taking, combined with instruction successively in symptoms, diagnosis, the principles and details of treatment, with instruction in the common operations of orthopedic surgery as opportunity offers.

Each course is limited to eight men.

Orthopedic Surgery 2. Quarter-courses, mornings, from October to April inclusive.

This course is offered in the wards of the Children's Hospital, and in the course the student will serve as dresser and assistant, having an opportunity to make the regular visits, to examine and follow the course of operative and non-operative cases, to receive instruction in diagnosis and treatment, to be present at operations, and to receive instruction in the use of plaster of Paris and apparatus. The course will occupy the entire morning. This course may be taken in connection with the course on the surgery of children (Surgery 4), the two together counting as a half-course. In this way the student's whole day for a month will be spent at the Children's Hospital.

Each course is limited to two men.

OBSTETRICS AND GYNAECOLOGY.*

Obstetrics and Gynaecology 1. *Obstetrics.* Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During half of the course the student will lodge at the hospital, and devote his time chiefly to attendance on cases in the out-patient clinic. In the course of this work he will be called on to assist at operations in the out-patient department, and will be expected, when his other duties permit, to make ward visits with the physician on duty in the house. In the other half of the course he will conduct the convalescence of the cases delivered by him during his resident service, and make daily ward visits, receiving clinical instruction on house cases and witnessing operations. Detailed written reports of the out-patient cases attended will be required. His clinical work will be done under the supervision of the Department and of the Hospital Staff on duty, and he will receive careful instruction in the proper methods of delivery and the care of convalescence. An opportunity will be given each student to observe the care of pregnant women in the pre-natal clinic. He will also

* See also Combined Course on last page.

be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will have an opportunity to perform the different operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Half-courses or quarter-courses, forenoons, throughout the year.

The courses will be given by Assistant Professor NEWELL assisted by Drs. YOUNG, MASON, and R. M. GREEN, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, and by Professor GRAVES, assisted by Drs. HUTCHINS, PEMBERTON, and WADSWORTH at the Free Hospital for Women, Brookline. These clinics afford ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be required to study and report on pathological specimens removed by operation, under the supervision of Professor MALLORY or Professor GRAVES.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

Each course will be limited to sixteen students.

Obstetrics and Gynaecology 3. Gynaecology. Quarter-courses, afternoons, December, January, April and May.

This course will be given at the Free Hospital for Women under the direction of Dr. GRAVES. It will include attendance at the out-patient clinic of the hospital together with opportunities for study of pathological conditions encountered in gynaecological practice.

Limited to three students per month.

DERMATOLOGY AND SYPHILIS.

Dermatology 1. Quarter-courses, forenoons, November, January and March.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. The work consists of clinical demonstrations and discussions in which the student is required to perform his share. This lasts two and one-half hours a day and afterwards a case is assigned which the student studies and writes upon every evening with the aid of his books. Students electing Course 1 are strongly recommended to elect Course 2.

Dermatology 2. Quarter-courses, afternoons, in January.

This course consists of microscopical work and is given on four afternoons a week at the Harvard Medical School. Students electing this course will be trained in the histological study of the commoner diseases of the skin.

Dermatology 3. Half-courses, all day, throughout the year.

Opportunity is offered to one man each month throughout the year to act as assistant house-officer to the out-patient department and skin ward of the Massachusetts General Hospital. Those electing this course will be expected to conform to the rules of the hospital.

Syphilis. Quarter-courses, forenoons, throughout the year.

Instruction in clinical syphilis will be given daily at the Massachusetts General Hospital.

Limited to three students per month.

DISEASES OF THE NERVOUS SYSTEM.

Neuropathology 1. Half-courses and quarter-courses, forenoons, afternoons or all day, throughout the year, preferably the second half-year.

The case-method is followed. The report of a selected case will be worked up by the student (as if for publication), based upon the personal employment of approved neuropathological methods.

Limited to two during a given month. Consultation with the instructor in advance will secure the choice of a case in line with the student's later special work.

Neuropathology 2. Half-courses and quarter-courses, forenoons, afternoons or all day throughout the year.

Clinico-pathological methods in neurology and psychiatry and allied problems of internal medicine and surgery. Students taking this course for several months may, with the consent of the authorities, serve as clinical clerks or laboratory externes in the Psychopathic Hospital or, under special conditions, in other State institutions. Students will be permitted to attend staff conferences at the institutions where their work is carried on. They may be required to submit reports or theses concerning observations made.

The clerkships and externships are limited to two in a given month. The instructor should be consulted in advance.

Neurology 1. Half-courses, forenoons, except April and May.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

- (1) Daily informal conferences on neurological topics.
- (2) History-taking and personal examinations of patients at the out-patient department of the Massachusetts General Hospital and at the Robert Bent Brigham Hospital.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.

In the final marking much account will be taken of the daily practical work of the student.

Neurology 2. Quarter-courses, forenoons, except April and May.

Instruction in these courses will be similar to that of *Neurology 1*, except that it will continue for one month instead of two. The instruction will be given chiefly at the Massachusetts General Hospital.

Psychiatry 1. Half-courses or quarter-courses, forenoons, or all day, throughout the year.

A clinical course in which, by permission of the authorities, the wards and laboratories of the Psychopathic Hospital may be used and the daily staff conferences attended. In addition to a complete representation of mental diseases, there is much material of a neurological and general medical interest, so that students are advised to take the work later rather than earlier in the year. Under certain circumstances students taking the course for several months may be appointed to internships by the hospital authorities.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM.

A voluntary conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry, and for graduate students taking allied courses has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by students.

OPHTHALMOLOGY.*

Ophthalmology 1. Half-courses, forenoons, December, January, February, March, April, and May.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations, with opportunity to witness their exemplification in the operative work of the hospital. Limited to four men.

Ophthalmology 2. Quarter-courses, forenoons, December, January, February, March, April, and May.

This course will be devoted to instruction in the use of the ophthalmoscope. Limited to four men.

OTOLOGY.*

Otology 1. Quarter-courses, forenoons, throughout the year.

In this course the student will serve as a volunteer assistant attending the clinic in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and assisting at operations in the house.

Otology 2. Half-courses, all day, throughout the year.

This course will consist of the work of Otology 1 plus afternoon work as a clinical clerk in the house. In addition to opportunities for the study of cases they will receive instruction in the anatomy, histology, and pathology of the ear.

Otology 3. Quarter-courses, afternoons, throughout the year.

This course on the histology and pathology will be given in the Laboratory at the Medical School.

LARYNGOLOGY.*

Laryngology 1. Quarter-courses, forenoons, throughout the year.
Massachusetts General Hospital.

These courses are chiefly clinical in character; but in addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Each course limited to two and preference will be given to men taking the course for two months.

* See also Combined Course on last page.

Laryngology 2. Drs. R. A. COFFIN and J. H. BLODGETT. Quarter-courses, forenoons, February, March, and April. Boston City Hospital.

These courses are clinical and include both ward and out-patient service in the Department for Diseases of the Nose, Throat, and Ear.

Each course limited to two and preference will be given to men taking the course for two months.

* COMBINED COURSE IN GYNAECOLOGY, OPHTHALMOLOGY, OTOTOLOGY, AND LARYNGOLOGY.

One month, every month, forenoons. This course is intended to supplement the third year's required section work in these four subjects. Each department will give instruction for six forenoons in each month.

TABULAR VIEW
OF
UNDERGRADUATE COURSES

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			<i>October and November.</i> Anatomy. Lecture or Demonstrations. <i>December and January.</i> Histology and Embryology. Lecture.			<i>October to January.</i> Lecture.
10-1			<i>October and November.</i> Anatomy. Dissection. <i>December and January.</i> Histology and Embryology. Laboratory.			<i>October to January.</i> Examinations or Laboratory.
2-3			<i>October and November.</i> Histology and Embryology. Lecture. <i>December and January.</i> Anatomy. Lecture or Demonstrations.			
3-5.30			<i>October and November.</i> Histology and Embryology. Laboratory. <i>December and January.</i> Anatomy. Dissection.			

FIRST YEAR. — Second Half-Year

PHYSIOLOGY. February

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-1			Laboratory Experiments.			
			March, April, May.			
9-10			Lecture or Demonstration.			
10-12.15			Laboratory Experiments.			
12.15 -1			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.		Laboratory.	

SECOND YEAR. — First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.		JANUARY.
9-12	Pathology. Laboratory.	1 week. Pathology. Laboratory. Daily.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory. E. E. Tyzzer. Daily.	9-10	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				9-12	Tuesday, Thursday, and Saturday.
				10.30-12	Monday, Wednesday, and Friday. Pathology. Laboratory.
12-1	Pathology. Lectures. Daily.			12-1	Pathology. Lectures. Daily.
2-3	Bacteriology. Lectures. Daily except Saturday.	Neuropathology. Daily except Saturday. Lectures and Laboratory. Southard.			Surgical Pathology. Nichols. Surgery. Cushing and assistants.
3-5.30	Bacteriology. Laboratory. Daily except Saturday.				

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	Medicine M. G. H. Edsall	Neurology M. G. H. Taylor	Surgery B. C. H.	Dermatology M. G. H. White	Surgery M. G. H.	Medicine B. C. H. Sears
10-12	Section Work Anatomy, Medicine, Surgery See Section Schedules					
1-2	Clinical Pathology Hewes Bldg. D	Pharmacology Hunt Bldg. E	Clinical Pathology Hewes Bldg. D	Pharmacology Hunt Bldg. E	Clinical Pathology Hewes Bldg. D	
2-3		Hygiene Rosenau Bldg. E		Hygiene Rosenau Bldg. E		
3-4	Pharmacology* Hunt Bldg. E	Medicine Christian Bldg. A, Room 201	Pharmacology* Hunt Bldg. E	Obstetrics Newell Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	
4-5	Hygiene* Rosenau Bldg. E	Surgery Bldg. A, Room 201	Hygiene* Rosenau Bldg. E	Surgery. Bldg. A, Room 201	Pharmacology Hunt Bldg. E	

* Half the class.

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine M. G. H., Edsall and B. C. H., Sears	Pediatrics Children's Hosp. Morse	Syphilis <i>Sept. 23 to Nov. 23</i> M. G. H. Post. Neurology <i>Nov. 23 to Dec. 31</i> M. G. H. <i>Jan. Psychopathic</i>
or 1.30 -2.30	Luncheon Period					
2.30- 3.30	Obstetrics Newell Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	Gynaecology and Otology alternate weeks Bldg. A, Room 201	Obstetrics Newell Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	
3.30- 4.30	Surgery Bldg. A, Room 201	Ophthalmology and Laryngology alternate weeks Bldg. A, Room 201	Pediatrics Bldg. A, Room 201	Surgery Bldg. A, Room 201	Clinico-pathological Demonstration Bldg. D	
4.30- 5.30				.		

THIRD YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine B. C. H., Sears and M. G. H., Edsall	Pediatrics Children's Hosp. Morse	Neurology and Psychiatry <i>Feb., Mar., Apr., May</i> Psychopathic M. G. H.
1 or 1.30 to 2.30	Luncheon Period					
2.30- 3.30	Obstetrics Bldg. A, Room 201	Medicine Cabot Bldg. A, Room 207	Medicine Sears Bldg. A, Room 201	Medicine Cabot Bldg. A, Room 201	Surgery Bldg. D Room 207	.
3.30- 4.30	Surgery Bldg. A, Room 201	Pediatrics Bldg. A, Room 207	Orthopedic Surgery and Syphilis alternate weeks Bldg. A, Room 201	Dermatology and Psychiatry alternate weeks Bldg. A, Room 201	Clinico-Pathological Demonstration Bldg. D	
4.30- 5.30						

DEGREES

ON MARCH 1, 1915, DEGREES WERE CONFERRED AS FOLLOWS: —

M.D.

Harry Calvin Berger, A.B. (*Univ. of Kansas*) 1912.

Frank Arthur Bowes, A.B. (*Holy Cross Coll.*) 1910.

Horace Stuart Cragin, S.B. (*Amherst Coll.*) 1910.

George Henry Gillette, A.B. (*Cornell Coll.*) 1910.

Michele Nigro, A.B. 1910.

Oswald Hope Robertson, S.B. (*Univ. of California*) 1910, S.M. (*ibid.*) 1912.

William Lloyd Shannon, A.B. (*McGill Univ.*) 1909, M.D., C.M. (*ibid.*) 1911.

Harold Wentworth Stevens, A.B. (*Bates Coll.*) 1906.

Arthur Lawrence Washburn, A.B. 1910.

ON COMMENCEMENT DAY, JUNE 24, 1915, DEGREES WERE CONFERRED AS FOLLOWS: —

M.D.

Edward Bartlett Allen, A.M. (*Brown Univ.*) 1911.

Walter Charles Allen, S.B. (*Univ. of Rochester*) 1911.

Vernon Edgar Babington, A.B. (*Brown Univ.*) 1911.

Leo Pecci Bell, A.B. (*Univ. of Missouri*) 1912.

Stanley Boller, A.B. (*Univ. of Southern California*) 1911.

Russell Potter Borden, A.B. (*Mt. Allison Coll.*) 1908.

Edwin Stanley Bridges, A.B. (*Univ. of New Brunswick*) 1908.

George Percy Brown, A.B. (*Yale Univ.*) 1911.

Harry Henderson Brown, Jr., A.B. (*Univ. of Texas*) 1910.

Hermon Carey Bumpus, Jr., PH.B. (*Brown Univ.*) 1912.

Alfred Anthony Caldarone, A.B. (*Holy Cross Coll.*) 1911.

Edward Joseph Cummings, A.B. (*Boston Coll.*) 1911.

John Francis Curtin, A.B. (*Holy Cross Coll.*) 1911.

Bernard Francis Devine, A.B. 1911.

Oliver Roland Diehl, A.B. 1912.

Kenneth Llewellyn Dole, A.B. (*Leland Stanford Jr. Univ.*) 1912.

Clyde Henry Donnell, A.B. (*Howard Univ.*) 1911.

John Godwin Downing, A.B. (*Boston Coll.*) 1911.

Harold Burney Eaton.

Henry William Edwards, Jr., S.B. (*Univ. of Rochester*) 1911.

Walter Davis Edwards, A.B. (*Univ. of Rochester*) 1911.

Harry Fein, A.B. 1911.

Luther Mitchell Ferguson, A.B. 1910.

- Charles Monroe Flagg, S.B. 1905.
 Edmond Alfred G  n  reux, A.B. (*Holy Cross Coll.*) 1911.
 Arthur Collis Gibson, A.B. (*Bowdoin Coll.*) 1911.
 Norman Wilkinson Gillespie, S.B. (*Tufts Coll.*) 1911.
 Charles Joseph Carroll Gillon, PH.B. (*Holy Cross Coll.*) 1911.
 Leon Southard Gilpatrick, A.B. (*Colby Coll.*) 1909.
 Daniel Clyde Hankey, A.B. (*Westminster Coll.*) 1909.
 Francis Todd H'Doubler, A.B. (*Univ. of Wisconsin*) 1907.
 Joseph Carrigan Horan, A.B. (*Sacred Heart Coll.*) 1911, A.M. (*ibid.*) 1913.
 James Craik Janney, A.B. 1911.
 Odin James Johnson, A.B. (*Univ. of Minnesota*) 1911.
 Merritt La Count Jones, S.B. (*Univ. of Wisconsin*) 1912.
 William John Kerr, S.B. (*Univ. of California*) 1912.
 Sydney Vernon Kibby, A.B. 1908 (1907).
 John Charles Lawlor, A.B. (*Holy Cross Coll.*) 1911.
 Edward Kerk Lee, A.B. (*Loyola Coll.*) 1910.
 Jerome Joseph McCaffrey, A.B. (*Holy Cross Coll.*) 1911.
 Philip McQuesten, A.B. (*Dartmouth Coll.*) 1911.
 Meredith Mallory, A.B. (*Univ. of Illinois*) 1911.
 Samuel Raynor Meaker, A.B. (*Princeton Univ.*) 1911.
 William Sarsfield Morriss, A.B. 1911.
 George Aloysius Murray, A.B. (*Boston Coll.*) 1909.
 John Joseph O'Donnell, Jr.
 Fabyan Packard, A.B. 1912.
 Bernard Louis Plouffe, A.B. (*Holy Cross Coll.*) 1911.
 Joseph Ernest Raia, A.B. (*Brown Univ.*) 1911.
 Ira Walter Richardson, A.B. (*Colby Coll.*) 1910.
 Arthur Forrest Sargent, A.B. (*Dartmouth Coll.*) 1911.
 Arthur Irving Shain, A.B. 1909.
 Charles Francis Sharry, A.B. 1910.
 Charles Booth Spruit, A.B. (*Illinois Coll.*) 1908.
 Harold Thomas, A.B. (*Acadia Coll.*) 1910.
 Cassell Clark Tucker, A.B. (*De Pauw Univ.*) 1911.
 Leonard Matthews Van Stone, A.B. (*Colorado Coll.*) 1911.
 Melvin Harvey Walker, Jr., A.B. (*Yale Univ.*) 1909.

M.D. cum Laude

- Paul Appleton, PH.B. (*Brown Univ.*) 1911.
 Elsie Vernon Bock, A.B. (*Upper Iowa Univ.*) 1910.
 Freeman Pell Clason, A.B. (*Bates Coll.*) 1911.
 Edwin Nelson Cleaves, A.B. 1911.

- Henry Anthony Durkin, A.B. (*Holy Cross Coll.*) 1911.
 George Francis Dwinell, A.B. (*Dartmouth Coll.*) 1911.
 Sumner Edwards, A.B. (*Bowdoin Coll.*) 1910.
 Harold Maurice Frost, A.B. (*Brown Univ.*) 1909.
 Gustave Philip Grabfield, A.B. (*Williams Coll.*) 1912.
 Arthur Morison Jackson, S.B. (*Dartmouth Coll.*) 1911.
 Jui Heng Liu, S.B. 1909.
 Lawson Gentry Lowrey, A.B. (*Univ. of Missouri*) 1909, A.M. (*ibid.*) 1910.
 Donald John MacPherson, S.B. (*Univ. of Rochester*) 1911.
 James Blaine Montgomery, A.B. (*Dartmouth Coll.*) 1911.
 Martin William Peck, S.B. (*Dartmouth Coll.*) 1902.
 Horace Kennedy Sowles, A.B. (*Clark Univ.*) 1910.
 Neuton Samuel Stern, A.B. 1912.
 Langdon Thom Thaxter, A.B. (*Williams Coll.*) 1911.
 De Wayne Townsend, A.B. (*Univ. of Wisconsin*) 1912.
 Louis Tompkins Wright, A.B. (*Clark Univ., Atlanta, Ga.*) 1911.

Dr. P. H.

- James Gordon Cumming, M.PH. (*Univ. of Wisconsin*) 1903, M.D. (*ibid.*) 1913.

Thesis: "The Variations in Blood Reactions of Different Species as Indicated by Hemolysis of the Red Blood Cells when Treated with Acids or Alkalies."

- Bruno Lyonel Schuster, M.D. (*Univ. of Michigan*) 1897, S.B. (*Jefferson Medical Coll.*) 1898.

Thesis. "A Practical Method of Determining Carbon Monoxide in Small Quantities."

THE MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

McDonald, William Joseph, A.B. 1895, M.D. 1899, C.P.H. 1915,	Brookline
Mellon, Ralph Robertson, S.B. (<i>Grove City Coll.</i>) 1901, M.D. (<i>Univ. of Michigan</i>) 1909, S.M. (<i>ibid.</i>) 1913,	Ann Arbor, Mich.

FOURTH CLASS

Aaronson, Jacob, A.B. 1912,	Chelsea
Aschmann, Theodore Henry, A.B. (<i>McPherson Coll.</i>) 1908, A.M. (<i>Kansas Univ.</i>) 1911, S.M. (<i>ibid.</i>) 1912,	Inman, Kan.
Barrow, William Hulbert, A.B. 1908,	Chelsea
Betteridge, Lawrence Augustine, A.B. 1912,	Boston
Biascoechea, Diego Abraham, S.B. (<i>Univ. of Michigan</i>) 1914,	San Juan, Porto Rico
Bigelow, George Hoyt, A.B. 1913 (1912),	Framingham
Briggs, Maurice Taggart, A.B. 1912,	Lynn
Butler, Edmund John, A.B. (<i>Boston Coll.</i>) 1912,	Cambridge
Calvin, Claudius Virgil, S.B. (<i>Allegheny Coll.</i>) 1914,	Boston
Churchill, Kenneth, A.B. (<i>Bowdoin Coll.</i>) 1912,	Newtonville
Crile, Dennis Rider Wood, S.B. (<i>Univ. of Wisconsin</i>) 1914,	Roswell, New Mex.
Dillon, Edward Saunders, A.B. (<i>Princeton Univ.</i>) 1911,	Woodbury, N. J.
Findley, Eldon Marshall, A.B. (<i>Univ. of Missouri</i>) 1914,	Graham, Mo.
Findley, William Meyer, A.B. (<i>Univ. of Missouri</i>) 1913,	Graham, Mo.
Fogg, Neil Augustus, A.B. (<i>Bowdoin Coll.</i>) 1913,	Freeport, Me.
Gilbert, John Joseph, A.B. (<i>Brown Univ.</i>) 1912,	Woonsocket, R. I.
Goethals, Thomas Rodman, A.B. 1912,	Balboa Heights, C. Z., Panama
Goffin, Launcelot Curry, A.B. (<i>Univ. of Missouri</i>) 1914,	San Francisco, Cal.
Golden, Ross, A.B. (<i>Cornell Coll.</i>) 1912,	Des Moines, Ia.
Grace, Clarence Milo, A.B. (<i>Washington State Univ.</i>) 1912,	Chillicothe, Mo.
Gregg, Alan, A.B. 1911,	Brookline
Gustafson, Paul, A.B. 1912,	Cambridge
Hamilton, John Homer, S.B. (<i>Oklahoma Agricultural and Mechanical Coll.</i>) 1910,	Stillwater, Okla.
Harding, Edward, A.B. 1911,	Boston
Harris, Carl Thorburn, S.B. (<i>Univ. of Rochester</i>) 1912,	Spencerport, N. Y.

- Hodgdon, Frank Wellington, Jr., A.B. 1911, Arlington
 Houston, David Walker, Jr., A.B. (*Princeton Univ.*) 1912, Troy, N. Y.
 Hurst, Benoni Price, A.B. (*Amherst Coll.*) 1912, Baltimore, Md.
 Hussey, Earl Edward, A.B. (*St. Mary's Coll.*) 1911, A.M.
 (*ibid.*) 1913, Wichita, Kan.
 Hyman, Clarence Henry, S.B. (*Heidelberg Univ.*) 1911, Payne, O.
 Koefod, Hilmar, S.B. (*Beloit Coll.*) 1911, Glenwood, Minn.
 Lacey, Walter Hamer, A.B. 1912, Wollaston
 Langmann, Alfred Gustav, A.B. 1912, New York, N. Y.
 Lanman, Thomas Hinckley, A.B. 1912, Cambridge
 Learned, Elmer Turell, A.B. (*Yale Univ.*) 1912, Fall River
 Lowry, Franklin Patterson, S.B. 1912, Newton
 Lyon, Arthur Bates, A.B. (*Amherst Coll.*) 1912, Brockton
 McIntyre, John Archibald, S.B. (*Cornell Coll.*) 1912, Mt. Vernon, Ia.
 Moffat, Barclay Wellington, A.B. 1912, Orange, N. J.
 Morris, Samuel Leslie, Jr., S.B. (*Davidson Coll.*) 1911, Atlanta, Ga.
 Nichols, Andrew, 3d, A.B. 1912, Hathorne
 Nissen, Harry Archibald, A.B. (*Univ. of South Dakota*)
 1911, Vermillion, So. Dak.
 Oberg, Frank Thorwald, A.B. (*Clark Univ.*) 1912, Worcester
 Osgood, Howard, A.B. 1911, Cambridge
 Parker, Frederic, Jr., A.B. 1913, Bedford
 Peabody, Charles William, A.B. 1912, Malden
 Putnam, James Jackson, Jr., A.B. 1912, Boston
 Ragle, Benjamin Harrison, A.B. (*De Pauw Univ.*) 1912, Spencer, Ind.
 Rapport, David Louis, A.B. 1912, Pittsburgh, Pa.
 Redway, Lawrence David, A.B. 1912, Cambridge
 Ricci, James Vincent, A.B. (*Brown Univ.*) 1913, Providence, R. I.
 Roberts, Bertrand Earle, A.B. 1912, Newton Centre
 Savage, Joseph Carr, A.B. (*Univ. of Colorado*) 1913, Denver, Colo.
 Scholl, Albert John, Jr., A.B. (*Leland Stanford Jr. Univ.*)
 1913, Los Angeles, Cal.
 Settle, Howard Edwin, A.B. 1913 (1912), Berne, N. Y.
 Stidger, Ivan Read, A.B. (*Allegheny Coll.*) 1911, Cameron, W. Va.
 Taylor, Adrian Stevenson, M.D. (*Univ. of Virginia*) 1905, Yangchow, China
 Taylor, John Houghton, A.B. 1913 (1912), Cambridge
 Tully, George Loughlin, A.B. 1912, Milford
 Vail, Harris Holmes, A.B. (*Yale Univ.*) 1912, Cincinnati, O.
 Viets, Henry Rouse, Jr., S.B. (*Dartmouth Coll.*) 1912, Newton
 Waite, John Herbert, S.B. (*Bucknell Univ.*) 1911, Lock Haven, Pa.
 Watt, George, S.B. (*Univ. of Michigan*) 1914, Laconia, N. H.
 Weld, Stanley Burnham, A.B. (*Dartmouth Coll.*) 1912, Winchester

Wells, Ward Stanley, S.B. (<i>Grinnell Coll.</i>) 1909,	Nashua, Iowa
Welbur, George Browning, S.B. 1912,	W. Newton
Withington, Paul Richmond, A.B. 1912,	Boston

THIRD CLASS

Adams, Frank Dennette, LITT.B. (<i>Princeton Univ.</i>) 1913,	Washington, D. C.
Adams, William Bradford, A.B. 1913,	Springfield
Ashton, Leslie Orrell, S.B. (<i>Dartmouth Coll.</i>) 1913,	Lawrence
Astrin, Albert, A.B. 1911,	Boston
Baker, Horace Mitchell, S.B. (<i>Mass. Agricultural Coll.</i>) 1912,	Selbyville, Del.
Bean, Harold Cotton, S.B. (<i>Dartmouth Coll.</i>) 1914,	Boston
Belknap, Robert Willis, A.B. (<i>Bowdoin Coll.</i>) 1913,	Damariscotta, Me.
Berry, Francis Brown, A.B. 1914,	Providence, R. I.
Brady, John William Stansbury, A.B. 1910,	Brooklandville, Md.
Brown, Frederick Ronald, A.B. (<i>McGill Univ.</i>) 1913,	Quebec, Can.
Buchanan, Edwin Porter, S.B. (<i>Princeton Univ.</i>) 1913,	Pittsburgh, Pa.
Buckman, Thomas Ellwood, A.B. 1912, A.M. 1914,	Cambridge
Bugbee, Edwin Percy, S.B. (<i>Tufts Coll.</i>) 1912,	Methuen
Busby, Eldon Durward, A.B. (<i>McGill Univ.</i>) 1913,	Ottawa, Can.
Callister, Alfred Cyril, A.B. (<i>Univ. of Utah</i>) 1915,	Salt Lake City, Utah
Chaffin, George Lawrence, A.B. (<i>Univ. of Utah</i>) 1914,	Farmington, Utah
Cheney, Marshall Chipman, A.B. (<i>Univ. of California</i>) 1909,	Berkeley, Cal.
Clifford, Randall, A.B. 1912,	New Bedford
Cunningham, Thomas Donald, S.B. (<i>Dartmouth Coll.</i>) 1913,	Denver, Colo.
Dallwig, Herbert Carl, S.B. (<i>Univ. of Wisconsin</i>) 1914, S.M. (<i>ibid.</i>) 1915,	Milwaukee, Wis.
Dearing, Arthur Herbert, S.B. (<i>Dartmouth Coll.</i>) 1914,	So. Portland, Me.
Dresel, Rudolph Ludwig, A.B. (<i>Univ. of California</i>) 1913,	San Francisco, Cal.
Fellows, Albert Whittier, S.B. (<i>Dartmouth Coll.</i>) 1914,	Dorchester
FitzGerald, Edmund Boyd, A.B. 1913,	Wollaston
Goldman, Ahbrum Milton, A.B. (<i>Univ. of Kansas</i>) 1914,	Kansas City, Mo.
Gould, Adrian Gordon, PH.B. (<i>Brown Univ.</i>) 1913,	Youngstown, O.
Hall, Francis Cooley, LITT.B. (<i>Princeton Univ.</i>) 1913,	Brookline
Hutchinson, Charles William, A.B. 1906, A.M. 1907,	Framingham Centre
Hutchinson, Rollo Wilson, A.B. (<i>Dartmouth Coll.</i>) 1913,	Milford, N. H.
Isaacson, Abraham Samuel, A.B. (<i>Brown Univ.</i>) 1913,	Malden
† Jackson, George Henry, Jr.	Newtonville
Jacobson, Victor Clarence, S.B. (<i>Univ. of Wisconsin</i>) 1915,	La Crosse, Wis.

† Admitted on two years of college work.

- Johnston, James Scott, A.B. (*Univ. of Michigan*) 1910,
A.M. (*ibid.*) 1911, Ithaca, N. Y.
- King, William Robert, S.B. (*Univ. of Minnesota*) 1913, Minneapolis, Minn.
- Klein, Armin, A.B. 1914, Chelsea
- Lurie, Moses Hyman, D.M.D. 1913, Dorchester
- Mabon, Thomas McCance, S.B. (*Princeton Univ.*) 1913, Pittsburgh, Pa.
- McCarthy, James Matthew, Jr., A.B. (*Holy Cross Coll.*)
1913, Woonsocket, R. I.
- MacGhee, Aaron Lawson, S.B. (*Colby Coll.*) 1913, Augusta, Me.
- McIver, Monroe Anderson, A.B. (*Univ. of North Carolina*) 1912, Gulf, N.C.
- Marshall, John Ross, A.B. 1913, Brookline
- Menninger, Karl Augustus, A.B. (*Univ. of Wisconsin*) 1914,
S.M. (*ibid.*) 1915, Madison, Wis.
- Meysenbug, Ludo von, A.B. (*Washington and Lee Univ.*)
1913, New Orleans, La.
- Miller, Howard Stephen, S.B. (*Univ. of Pittsburgh*) 1912, Freedom, Pa.
- Moloney, James Bowe, A.B. 1914, So. Boston
- Neal, Kemp Prather, A.B. (*Trinity Coll., N. C.*) 1913, Monroe, N.C.
- Nisbet, Douglas Heath, S.B. (*Davidson Coll.*) 1913, Charlotte, N. C.
- Norbury, Frank Garm, A.B. (*Illinois Coll.*) 1912, A.M.
(*Univ. of Illinois*) 1913, Springfield, Ill.
- †Oerting, Harry, St. Paul, Minn.
- Parkins, Leroy Edward, A.B. (*Simpson Coll.*) 1912, Knowlton, Ia.
- Parmenter, Derric Choate, A.B. 1913, Gloucester
- Parsons, Robert Percival, S.B. (*Univ. of Wisconsin*) 1915, Chicago, Ill.
- Paul, Benjamin Delos, S.B. (*Purdue Univ.*) 1912, Brookston, Ind.
- Pennell, Walter Johnson, A.B. (*Bates Coll.*) 1913, Auburn, Me.
- Persons, Carl Clough, A.B. (*Wesleyan Univ., Conn.*) 1913, Maynard
- Rosenberg, Nathan, A.B. (*Univ. of Kansas*) 1915, Kansas City, Mo.
- Saeger, Ernest Tirrill, S.B. (*Dartmouth Coll.*) 1914, Brookline
- †Shirley, John Newton, So. Duxbury
- †Strahlmann, Louis, San Diego, Cal.
- Surls, Joseph Kiddoo, A.B. (*Williams Coll.*) 1913, Brookline
- Thompson, Hartwell Greene, A.B. (*Yale Univ.*) 1913, Taftville, Conn.
- Wearn, Joseph Treloar, S.B. (*Davidson Coll.*) 1913, Charlotte, N. C.
- Welles, Edward Sawtelle, S.B. (*Iowa State Coll.*) 1913, Los Angeles, Cal.
- Wetherell, Bryant Davis, A.B. (*Williams Coll.*) 1912, Holyoke
- White, Joseph Warren, A.B. 1913, Roxbury
- Wilcox, Charles Frederick, Jr., A.B. (*Univ. of Utah*) 1913, Salt Lake City, Utah
- Young, William Bartholomew, A.B. 1913, Rockland
- Zovickian, Hovhannes, PH.B. (*Brown Univ.*) 1909, A.M.
(*ibid.*) 1909, Brockton

† Admitted on two years of college work.

SECOND CLASS

Ames, Forrest Bertram, A.B. (<i>Univ. of Maine</i>) 1913,	Bangor, Me.
Angevine, Robert Winsper, S.B. (<i>Univ. of Rochester</i>) 1915,	Rochester, N. Y.
Atwater, Reginald Myers, A.B. (<i>Colorado Coll.</i>) 1914,	Colorado Springs, Colo.
Badger, Omar Perlie, A.B. (<i>Bowdoin Coll.</i>) 1914,	Skowhegan, Me.
Beavers, Benjamin Franklin, A.B. (<i>Wabash Coll.</i>) 1913,	Decatur, Ind.
Blackway, Charles Everett, A.B. (<i>Brown Univ.</i>) 1914,	Fall River
Bullard, Carleton Wheeler, S.B. 1914,	So. Framingham
Burgess, Barry Hovey, A.B. (<i>Acadia Coll.</i>) 1912, A.M. (<i>Harvard Univ.</i>) 1914,	Sheffield Mills Station, N. S.
Burwell, Charles Sidney, Jr., A.B. (<i>Allegheny Coll.</i>) 1914,	Meadville, Pa.
Callanan, Francis Jervois, A.B. 1914,	Roxbury
Cameron, Owen John, A.B. (<i>St. Francis Xavier's Coll.</i>) 1914,	Antigonish, N. S.
†Carroll, James William,	Cambridge
Cohen, Hyman, A.B. 1915,	Dorchester
Colby, Fletcher Hatch, S.B. (<i>Dartmouth Coll.</i>) 1914,	Boston
Curtis, Robert Dudley, A.B. 1914,	Dorchester
Daland, Ernest Merrill, A.B. (<i>Brown Univ.</i>) 1912,	Wakefield
Drake, Wallace Horne, S.B. (<i>Dartmouth Coll.</i>) 1914,	No. Weymouth
Edgelow, Arthur Ford Geddes, A.B. (<i>Trinity Coll., Conn.</i>) 1914,	Cairo, N. Y.
Eisenberg, Adolph Martin, S.B. (<i>Mass. Institute of Technology</i>) 1912, A.M. (<i>Harvard Univ.</i>) 1914,	Roxbury
Ellis, Ralph Warner, A.B. (<i>Clark Univ.</i>) 1914,	Worcester
English, Hubert Morton, A.B. (<i>Univ. of Illinois</i>) 1914,	Marshall, Ill.
Finkelstein, Harry Paul, A.B. 1915,	E. Boston
Foster, William Harold, A.B. (<i>Boston Univ.</i>) 1914,	Boston
Freeman, Mervin, A.B. (<i>De Pauw Univ.</i>) 1913,	Sullivan, Ind.
Fremont-Smith, Maurice, A.B. 1914,	Bar Harbor, Me.
†Gabe, William Edwin,	Indianapolis, Ind.
Gabriels, Joseph Augustus, A.B. (<i>Holy Cross Coll.</i>) 1914,	Watervliet, N. Y.
Gallupe, Harold Quimby, S.B. (<i>Tufts Coll.</i>) 1911,	Everett
Gray, Ellis Barksdale, A.B. (<i>Trinity Coll., N. C.</i>) 1914,	Gray Court, S. C.
Grimm, Charles Henry, S.B. (<i>Valparaiso Univ.</i>) 1912,	Chicago, Ill.
Gring, Ambrose Daniel, Jr., A.B. (<i>Yale Univ.</i>) 1912,	Boston
Gunby, Paul Clark, A.B. 1914,	Sherman, Tex.
Harris, Francis Sterling, PH.B. (<i>Yale Univ.</i>) 1914,	Cambridge
Havens, Leon Clive, A.B. (<i>Colorado Coll.</i>) 1913, A.M. (<i>ibid.</i>) 1914,	Colorado Springs, Colo.

† Admitted on two years of college work.

Henderson, Charles Smith, A.B. (<i>St. Francis Xavier's Coll.</i>) 1914,	Parrsboro, N. S.
Hopkins, Frederick Sherman, A.B. 1915,	Springfield
Howe, Glover Elbridge, S.B. (<i>Mass. Agricultural Coll.</i>) 1913,	Marlborough
Howes, Seth Francis Harrison, A.B. (<i>Colby Coll.</i>) 1914,	Southborough
Hun, Henry Hand, PH.B. (<i>Yale Univ.</i>) 1914,	Albany, N. Y.
Hyman, Albert Solomon, A.B. 1915,	Roxbury
Johnson, George Grady, A.B. (<i>Trinity Coll., N. C.</i>) 1913,	Durham, N. C.
Johnson, Ralph Montgomery, A.B. (<i>Cornell Univ.</i>) 1914,	Ogden, Utah
Kebabjian, Hrant Setrag, A.B. (<i>Anatolia Coll.</i>) 1913,	Angora, Turkey in Asia
King, Donald Storrs, A.B. (<i>Oberlin Coll.</i>) 1912,	Oberlin, O.
Kuder, Joseph Matthew, A.B. 1914,	Lehigh, Pa.
Lande, Herman, A.B. (<i>Yale Univ.</i>) 1915,	Elmira, N. Y.
Landry, James McGuire Anthony, A.B. and A.M. (<i>St. Mary's Coll.</i>) 1911,	Pawtucket, R. I.
†Lincoln, James Rufus,	Wareham
Lord, Robert Mendon, A.B. (<i>Brown Univ.</i>) 1914,	Providence, R. I.
Lucas, Robert Theodore, A.B. (<i>Trinity Coll. N. C.</i>) 1914,	Charlotte, N. C.
McClellan, Reyburn, S.B. (<i>Princeton Univ.</i>) 1914,	Xenia, O.
McGowan, Daniel Joseph, Jr., A.B. (<i>Holy Cross Coll.</i>) 1913,	Newport, R. I.
McIntosh, Rustin, A.B. 1914,	New York, N. Y.
McKenzie, John Ernest, A.B. (<i>Wofford Coll.</i>) 1912,	Hamer, S. C.
McLaughlin, Edward Aloysius, A.B. (<i>Brown Univ.</i>) 1914,	Providence, R. I.
†McNamara, Frank Patrick,	Fitchburg
Marvin, Harold Myers, A.B. (<i>Davidson Coll.</i>) 1914,	Jacksonville, Fla.
†Millhoff, Clarence Dimmick,	Cleveland, O.
Milliken, Robert Addison, A.B. (<i>Princeton Univ.</i>) 1914,	Indianapolis, Ind.
†Morrissey, Daniel Leo,	Bristol, R. I.
Myers, Franklin Augustus, A.B. (<i>Lincoln Univ.</i>) 1913,	Brooklyn, N. Y.
Nye, Robert Nason, A.B. 1913,	Springfield
O'Connor, Alfred Smith, A.B. (<i>Holy Cross Coll.</i>) 1914,	Worcester
O'Meara, John William, A.B. (<i>Holy Cross Coll.</i>) 1912,	Jamaica Plain
Osgood, Herman Ashton, A.B. 1911, A.M. 1915, D.M.D. 1915,	Roxbury
Parkhurst, Albert Elisha, A.B. (<i>Bowdoin Coll.</i>) 1913,	Presque Isle, Me.
Patterson, Russell Hugo, S.B. (<i>Univ. of Georgia</i>) 1914,	Athens, Ga.
†Rapple, Willard Cole,	Menominee, Mich.

† Admitted on two years of college work.

- Rieger, John Benjamin, PH.C. (*Univ. of Michigan*) 1906,
 s.B. (*ibid.*) 1907, S.M. (*George Washington Univ.*) 1914, Reading, Pa.
- Rock, John Charles, S.B. 1915, Marlborough
- Rönne, George Emil, A.B. (*Brown Univ.*) 1914, Providence, R. I.
- Root, James Harold, PH.B. (*Yale Univ.*) 1914, Brookline
- Rose, Julian, A.B. 1915, Brooklyn, N. Y.
- Schussler, Hermann, Jr., S.B. (*Univ. of California*) 1914, San Francisco, Cal.
- Scott, Arthur Carroll, Jr., A.B. (*Univ. of Texas*) 1914, Temple, Tex.
- †Seabury, Robert Brewster, New Haven, Conn.
- Sefton, Wilfred, PH.B. (*Yale Univ.*) 1914, Auburn, N. Y.
- †Sheffield, William Cyrenus, Providence, R. I.
- Shields, James Burnett, S.B. (*Dartmouth Coll.*) 1914, Boston
- Shoenfield, Adolph, A.B. 1915, Youngstown, O.
- †Sisson, Eugene Pardon, Jr., Hamilton, N. Y.
- Smith, Judson Arthur, A.B. 1915, Hudson Falls, N. Y.
- Stone, Eric Percy, S.B. 1915, Chocorua, N. H.
- Street, Claudius Augustus, A.B. (*Colorado Coll.*) 1914, Linville Falls, N. C.
- Sullivan, Edward Scanlon, A.B. 1914, Concord, N. H.
- Taylor, Norman Henry, A.B. (*Haverford Coll.*) 1913, A.M.
 (*Harvard Univ.*) 1914, New York, N. Y.
- Thorne, Fred Sanborn, A.B. 1913, Brookline
- Vail, Ramon Montgomery, PH.B. (*Yale Univ.*) 1914, Thompsonville, Conn.
- Waring, Elmar Stebbins, A.B. (*Univ. of South Carolina*)
 1914, Columbia, S. C.
- Whitney, Raymond Cyrus, S.B. (*Middlebury Coll.*) 1914, Millbury
- Wickham, George Smallwood, A.B. (*Holy Cross Coll.*) 1914, So. Lee
- Williamson, Adam Cluness, A.B. (*Westminster Coll.*) 1911,
 A.M. (*Princeton Univ.*) 1914, Brockton
- Winsor, Allen Pellington, A.B. 1914, Fairhaven
- Woodward, Harry Joseph, S.B. (*Norwich Univ.*) 1912, Montpelier, Vt.
- Wylde, Russell Arthur, A.B. (*Dartmouth Coll.*) 1912, Lawrence

FIRST CLASS

- Adler, Stuart Welsh, PH.B. (*Lafayette Coll.*) 1915, Yonkers, N. Y.
- Argo, William Chenault, A.B. (*Colorado Coll.*) 1915, Colorado Springs, Colo.
- Attridge, Arthur James, A.B. (*St. Francis Xavier's Coll.*) 1910, Houlton, Me.
- Atwood, Warren Gerald, A.B. (*Dartmouth Coll.*) 1915,
 Fishkill-on-Hudson, N. Y.
- Ayer, Vernon Alexander, S.B. (*Clark Univ., Ga.*) 1914, Gainesville, Fla.
- Ayres, Samuel, Jr., A.B. (*Univ. of Missouri*) 1915, Kansas City, Mo.

Báguin, Alexis Matthew, A.B. (<i>Univ. of Illinois</i>) 1915,	Quincy, Ill.
Beasley, Albert Sidney, Jr., A.B. (<i>Lincoln Univ.</i>) 1915,	Macon, Ga.
Beazley, John Henderson, A.B. and A.M. (<i>Mt. Allison Univ., N. B.</i>) 1909,	Hantsport, N. S.
Blackett, Charles Wesley, Jr., A.B. (<i>Boston Univ.</i>) 1915,	Dorchester
†Boch, Joseph,	Whitman
Boggs, Arthur Gordon, A.B. (<i>Dartmouth Coll.</i>) 1915,	Needham
Breed, William Bradley, A.B. 1915,	Syracuse, N. Y.
Cabot, Irving Lyman, A.B. (<i>Middlebury Coll.</i>) 1915,	Windsor, Vt.
Cahill, Francis Michael, A.B. (<i>Holy Cross Coll.</i>) 1915,	Worcester
Calleja, Camilo, Jr., A.B. (<i>Madrid Univ.</i>) 1910,	Madrid, Spain
Cheney, Robert Cartwright, A.B. 1915,	Concord
Coleman, George Vincent, A.B. (<i>Holy Cross Coll.</i>) 1915,	Providence, R. I.
Crotty, Martin Flaherty, A.B. (<i>Holy Cross Coll.</i>) 1915,	Worcester
Cushing, Kirke Williams, PH.B. (<i>Kenyon Coll.</i>) 1914, A.B. (<i>Yale Univ.</i>) 1915,	Cleveland, O.
Davis, William Lincoln, S.B. (<i>Dartmouth Coll.</i>) 1913,	Concord
Derby, Joseph Patrick, A.B. (<i>Catholic Univ. of America</i>) 1915,	No. Easton
*Donahoe, Robert Abbott,	Lowell
Dorrance, Harold Sparrow, PH.B. (<i>Hamilton Coll.</i>) 1912,	Camden, N. Y.
Duffy, James Joseph, A.B. (<i>Holy Cross Coll.</i>) 1915,	Webster
Dunne, Richard Edwin, A.B. (<i>Catholic Univ. of America</i>) 1915,	Derby, Conn.
Fitchet, Seth Marshall, A.B. (<i>Clark Univ.</i>) 1915,	San Antonio, Tex.
Friedberg, Emanuel Benjamin, A.B. 1915,	Pittsburgh, Pa.
Garland, Joseph, A.B. 1915,	Winchester
Greene, Phillips Foster, A.B. (<i>Amherst Coll.</i>) 1915,	Upper Montclair, N. J.
Greenough, James, A.B. 1915,	Cambridge
Griffith, Jesse Brinker, A.B. (<i>Univ. of Pittsburgh</i>) 1915,	Monessen, Pa.
Haggart, Gilbert Edmund, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1915,	Durango, Colo.
Haines, Samuel Faitoute, S.B. 1915,	Rochester, Minn.
§Hale, Myron Eusebius (<i>Bowdoin Coll.</i>),	Brookline
†Harris, William,	New London, Conn.
Hawley, Ralph Ernest, A.B. (<i>Univ. of Michigan</i>) 1909,	Berlin, Mich.
Herrick, Theodore Pomeroy, A.B. (<i>Yale Univ.</i>) 1915,	Cleveland, O.
Hubbard, Eliot, Jr., A.B. 1915,	Boston
Jackson, Henry, Jr., A.B. 1915,	Boston
Jackson, Howard Burr, A.B. 1915,	Jamaica Plain

† Admitted on two years of college work.

* Has completed work in Harvard College for the Bachelor's degree.

§ Has completed work in Bowdoin College for the Bachelor's degree.

*Jameson, Charles Harold,	Thomaston, Me.
Jones, Chester Morse, A.B. (<i>Williams Coll.</i>) 1913,	Newton Centre
Kelsey, Wilhelm Herman, S.B. (<i>Colby Coll.</i>) 1915,	Wollaston
Kurth, Harold Richard, A.B. 1915,	Lawrence
Leddy, Eugene Thomas, A.B. 1915,	Taunton
†Loeb, Robert Frederick,	New York, N. Y.
Long, Graydon, S.B. (<i>Univ. of Rochester</i>) 1912,	Rochester, N. Y.
Loud, Norman Wiley, A.B. 1915,	Colorado Springs, Colo.
Lucy, John Joseph, A.B. (<i>Boston Coll.</i>) 1915,	Somerville
Ludlow, George Craig, A.B. 1915,	Worcester
§Lynch, Frederick James (<i>Bowdoin Coll.</i>),	Cambridge
Lynch, James Joseph, S.B. (<i>Notre Dame Univ.</i>) 1915,	Laurens, Ia.
McCoy, Charles Clifton, S.B. (<i>Princeton Univ.</i>) 1915,	E. Liverpool, O.
McEnerney, Charles Harold, A.B. (<i>Catholic Univ. of America</i>) 1915,	W. Medford
McGarry, Augustine Wilfred, A.B. (<i>St. Mary's Univ.</i>) 1911,	Brighton
McGill, Donald Cameron, A.B. (<i>Cornell Univ.</i>) 1915,	Rochester, N. Y.
Martin, Charles Louis, E.E. (<i>Univ. of Texas</i>) 1914,	Dallas, Tex.
Mason, William, A.B. 1915,	Fall River
Mason, Wallace Edward, Jr., A.B. (<i>Bowdoin Coll.</i>) 1914,	Keene, N. H.
Meigs, Joe Vincent, 3d, A.B. (<i>Princeton Univ.</i>) 1915,	Lowell
*Miller, Wyman Richardson,	Fitchburg
Mills, Chester Rudolph, S.B. (<i>Colby Coll.</i>) 1915,	Needham
Nathan, Joseph Henry, S.B. (<i>Univ. of Georgia</i>) 1915,	Jesup, Ga.
†Nay, Ernest Omar,	Marshall, Ill.
Neal, Paul Nathaniel, A.B. (<i>Trinity Coll., N. C.</i>) 1915,	Monroe, N. C.
Newton, Francis Chandler, A.B. (<i>Amherst Coll.</i>) 1915,	Reading
Nutter, Denton Gove, A.B. 1915,	Newton Upper Falls
O'Connor, Michael John, A.B. (<i>Holy Cross Coll.</i>) 1915,	Providence, R. I.
O'Hara, Dwight, S.B. (<i>Dartmouth Coll.</i>) 1915,	Waltham
Olch, Benedict, A.B. (<i>Brown Univ.</i>) 1915,	Providence, R. I.
Peacock, Thomas Gerald, A.B. (<i>Univ. of Georgia</i>) 1915,	Barnesville, Ga.
*Peck, Eugene Curtis,	New Britain, Conn.
Pennoyer, Grant Palmer, A.B. 1915,	E. Orange, N. J.
Rees, Henry Maynard, A.B. (<i>Yale Univ.</i>) 1913,	Cleveland, O.
*Richards, Lyman Gilder,	Fall River
Richards, Thomas Kinsman, A.B. 1915,	Spokane, Wash.
Robinson, Bruce Bowman, A.B. (<i>Baker Univ.</i>), 1914, A.M. (<i>Clark Univ.</i>) 1915,	Tulsa, Okla.
Roe, George Thomas, A.B. (<i>Georgetown Univ.</i>) 1915,	Boston

* Has completed work in Harvard College for the Bachelor's degree.

† Admitted on two years of college work.

§ Has completed work in Bowdoin College for the Bachelor's degree.

Romberg, Eli Charles, A.B. 1914,	Dorchester
Root, Howard Frank, A.B. 1913,	Ottumwa, Ia.
Rowell, Hugh Grant, A.B. (<i>Dartmouth Coll.</i>) 1915,	Orleans, Vt.
Royal, Kent Tyler, S.B. (<i>Colby Coll.</i>) 1915,	Harvard
*Russell, George Gardiner,	Cambridge
Sanders, Morris Blackman, A.B. (<i>Washburn Coll.</i>) 1914,	Yonkers, N. Y.
Sanford, Clarence Higgins, S.B. 1915,	Allston
*Sargent, Francis Barnard,	Concord
Sasano, Kakutaro Thomas, A.B. (<i>Colorado Coll.</i>) 1915,	Okayama, Japan
Shedden, William Martindale, A.B. (<i>Yale Univ.</i>) 1915,	Brookline
Simpson, Charles Moffett, A.B. (<i>Trinity Univ., Tex.</i>) 1914,	Waxahachie, Tex.
Sisco, Dwight Lewis, A.B. (<i>Colorado Coll.</i>) 1913, A.M. (<i>ibid.</i>) 1914,	Colorado Springs, Colo.
Snow, Bruce, A.B. 1915,	Stoneham
Stein, Louis Charles, A.B. (<i>Yale Univ.</i>) 1915,	Hartford, Conn.
Steinberg, Alfred Julian, A.B. (<i>George Washington Univ.</i>) 1914,	Washington, D. C.
Stone, Ellsworth Allen, A.B. (<i>Bowdoin Coll.</i>) 1915,	Lynn
*Straus, Francis Howe,	Hinsdale, Ill.
Supple, William Raymond, A.B. (<i>Boston Coll.</i>) 1915,	Cochituate
Thorndike, William Tecumseh Sherman, A.B. 1915,	Boston
Van Stone, Wilfred Douglas, A.B. (<i>Colorado Coll.</i>) 1915,	Denver, Colo.
Veldee, Milton Victor, PH.C. (<i>Washington State Univ.</i>) 1911, S.B. (<i>ibid.</i>) 1913, S.M. (<i>ibid.</i>) 1914,	Bremerton, Wash.
Wilder, Edward Wheeler, A.B. 1915,	Dorchester
Williams, Charles Amory, Jr., A.B. 1914,	Brookline
Wilson, Edward Harlan, S.B. (<i>Dartmouth Coll.</i>) 1915,	Columbus, O.
Wright, William Witter, A.B. (<i>Yale Univ.</i>) 1912,	Putnam, Conn.

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH	2
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE	
FOURTH CLASS.	67
THIRD CLASS	68
SECOND CLASS	96
FIRST CLASS.	103
TOTAL	336

* Has completed work in Harvard College for the Bachelor's degree.

GRADUATES OF COLLEGES

Acadia College	1	Princeton University	11
Allegheny College	3	Purdue University	1
Amherst College	4	St. Francis Xavier's College (Nova Scotia)	3
Anatolia College	1	St. Mary's College	5
Baker University	1	Simpson College	1
Bates College	1	Leland Stanford Jr. University	2
Beloit College	1	Trinity College (Conn.)	1
Boston College	3	Trinity College (N. C.)	5
Boston University	2	Trinity University (Tex.)	1
Bowdoin College	9	Tufts College	3
Brown University	12	University of California	3
Bucknell University	1	University of Colorado	1
Catholic University of America	3	University of Georgia	3
Clark University	4	University of Illinois	3
Clark University (Ga.)	1	University of Kansas	4
Colby College	5	University of Maine	1
Colorado College	9	University of Michigan	7
Cornell College	2	University of Minnesota	1
Cornell University	2	University of Missouri	4
Dartmouth College	19	University of North Carolina	1
Davidson College	4	University of Pittsburgh	2
DePauw University	2	University of Rochester	3
Georgetown University	1	University of South Carolina	1
Grinnell College	1	University of South Dakota	1
Hamilton College	1	University of Texas	2
Harvard University	100	University of Utah	2
Haverford College	1	University of Wisconsin	7
Heidelberg University	1	Valparaiso University	1
Holy Cross College	12	Wabash College	1
Illinois College	1	Washburn College	1
Iowa State College	1	George Washington University	2
Kenyon College	1	Washington and Lee University	1
Lafayette College	1	Washington State University	4
Lincoln University	2	Wesleyan University (Conn.)	1
McGill University	2	Westminster College	1
McPherson College	1	Williams College	3
Madrid University	1	Wofford College	1
Massachusetts Agricultural College	2	Yale University	16
Massachusetts Institute of Technology	1		
Middlebury College	2		
Mt. Allison University	2	Total	339
Norwich University	1	Counted more than once	23
Notre Dame University	1		
Oberlin College	1	Total Number of College Graduates	316
Oklahoma Agricultural and Mechanical College	1	Number of Colleges	83

ANNOUNCEMENT FOR 1916-17

The next session of the Medical School begins September 25, 1916. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Monday, the 25th of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should file an application blank, which can be obtained from the Dean's office, on or before July 1st, 1916.

CALENDAR

1916.

- Sept. 13, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 25, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Thursday.* Columbus Day : a holiday.
- Nov. 30, Thursday.* Thanksgiving Day : a holiday.
- Dec. 8, Friday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.
- Dec. 29, Friday.* Last day for receiving dissertations for the Boylston Medical Prizes.

RECESS FROM DEC. 23, 1916, TO JAN. 2, 1917, INCLUSIVE

1917.

- Jan. 15, Monday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1917.
- Jan. 25, Thursday.* Mid-year Examinations begin.
- Jan. 29, Monday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Thursday.* **Second half-year begins.**

- Feb. 22, Thursday.* Washington's Birthday : a holiday.
- April 2, Monday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 15 TO APRIL 21, INCLUSIVE

- May 1, Tuesday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 1, Tuesday.* Last day for receiving applications for the Bullard Fellowships and the Moseley Travelling Fellowships.
- May 1, Tuesday.* Last day for receiving applications for Scholarships for 1917-18 (except the Cheever, Haven, and Hayden Scholarships).
- May 1, Tuesday.* Last day for receiving applications of candidates for the degree of M.D. in 1917.
- May 30, Wednesday.* Memorial Day : a holiday.
- June 1, Friday.* Examinations begin.
- June 21, Thursday.* **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 23, INCLUSIVE

- Sept. 12, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 24, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Friday.* Columbus Day : a holiday.
- Nov. 29, Thursday.* Thanksgiving Day : a holiday.
- Dec. 10, Monday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.

INDEX

Names of officers of instruction and administration are set in *small capitals*; the *italic figures* used with the former refer to the pages on which their teaching duties are indicated. The various degrees conferred by the School are indexed under *Degree*; and the hospitals in which the instruction is partly carried on, or supplemented, under *Hospitals*.

- Academic year, 7.
 Adams, Arthur, 31.
 ADAMS, Z. B., *Fellow*, 15, 45.
 ADLER, H. M., *Asst. Prof.*, 10, 67, 69.
 Administrative board, 12, 13, 21.
 Administrative officers, 12.
 Administrative offices, 11.
 Admission of Students, rules concerning, 21. And *see* Advanced Standing.
 Advanced Standing, rules concerning admission to, 21, 22.
 ALLEN, F., *Lect.*, 14, 59.
 Anatomy, Department of, 44 ff.
 Anatomy, instruction in, 44-48; fourth-year electives in, 72, 73.
 Anatomy, Comparative. *See* Anatomy.
 ARNOLD, H. D., *Dean*, 8.
 ASH, J. E., *Instr.*, 16, 52, 53.
 Austin Teaching Fellows, 20.
 AYER, J. B., *Instr.* and *Asst.*, 16, 67.
 Bacteriology, instruction in, 51, 52; fourth-year electives in, 74.
 BARNES, H. A., *Instr.*, 14, 70, 71.
 BARNEY, J. D., *Asst.*, 15, 60.
 BEGG, A. S., *Instr.*, 11, 44.
 BELL, R. D., *Fellow*, 18, 51.
 BILL, J. P., *Asst.*, 18, 55.
 BINNEY, H., *Asst.*, 15, 60.
 Biochemistry. *See* Biological Chemistry.
 Biological Chemistry, instruction in, 51; fourth-year elective in, 74.
 BLAKE, G., *Asst.*, 16, 56.
 BLAKE, J. B., *Asst. Prof.*, 9, 59, 62, 81.
 BLODGETT, J. H., *Instr.*, 14, 70, 71, 88.
 BLOOR, W. R., *Asst. Prof.*, 16, 51.
 Bond required of students, 26.
 BOOTHBY, W. M., *Lect.*, 16, 44, 59.
 Boston Medical Library, 32.
 Boston Public Library, 32.
 BOUTWELL, H. K., *Asst.*, 15, 52.
 Bovie, William T., 32.
 BOWDITCH, H., *Asst.*, 17, 56.
 BOWDITCH, H. I., *Instr.*, 15, 65.
 BOYDEN, E. A., *Fellow*, 19, 45.
 Boylston Medical Prizes, 39, 40.
 BRACKETT, C. A., *Prof.*, 8.
 BRACKETT, E. G., *Asso.*, 13, 63.
 BRADFORD, E. H., *Dean*, 8, 11, 12, 31.
 BREMER, J. L., *Asso. Prof.*, 10, 13, 44, 47, 73.
 BRICKLEY, W. J., *Fellow*, 16, 60.
 BROWN, J. H., *Asst.*, 17, 54.
 BROWN, P., *Asst.*, 15, 60.
 BRYANT, J., *Asst.*, 16, 45.
 BURNS, F. S., *Instr.*, 14, 66.
 Bursar, Office of, 11, 26 n.

- CABOT, H., *Asst. Prof.*, 10, 59, 62, 81, 82.
 CABOT, R. C., *Asst. Prof.*, 9, 77.
 CAHILL, H. P., *Asst.*, 18, 70.
 Cancer Commission of Harvard University, history of, 31, 32.
 CANNON, W. B., *Prof.*, 10; *Adviser*, 12; 48, 50.
 CATTELL, McK., *Fellow*, 19, 48, 50.
 CHEEVER, D., *Asst. Prof.*, 10, 44, 59, 72.
 CHEEVER, D., *Asso.*, 15.
 CHIU, S. E., *Austin Fellow*, 20, 51.
 CHRISTIAN, H. A., *Prof.*, 10, 27, 31, 40, 56, 58, 59, 77.
 CLARK, J. P., *Instr.*, 13, 70, 71.
 Clinical advantages of the school, 27 ff.
 CLYMER, G., *Asst.*, 17, 67.
 COBB, F., *Lect.*, 13, 59.
 COFFIN, R. A., *Instr.*, 13, 70, 71, 88.
 Colleges represented by graduates in Harvard Medical School, 109.
 COOKE, W. P., *Prof.*, 8.
 COOLIDGE, A., *Prof.*, 8, 11, 70, 71.
 COTTON, F. J., *Lect.*, 13, 59.
 COUNCILMAN, W. T., *Prof.*, 8, 31, 52, 53, 75.
 CRABTREE, E. G., *Asst.*, 18, 60.
 CRANDON, LeR. G., *Asst.*, 14, 59.
 CROCKETT, E. A., *Asst. Prof.*, 9, 69, 70.
 Croft, Caroline Brewer, foundress of Cancer Commission, 31.
 CUSHING, H., *Prof.*, 9, 27, 59, 61, 62, 81.
 CUTLER, E. C., *Asst.*, 19, 60.
 DAWSON, R. P., *Asst.*, 18, 56.
 Dean, office of, 11.
 DEGREE OF
 Bachelor of Medicine, 7.
 Doctor of Medicine, rules governing candidates for, 21, 22; requirements for, 24; fees and expenses, 25; list of recipients of March, 1915, 96, and June, 1915, 96-98 (*cum laude*, 97) candidates for, 99 ff.
 Doctor of Philosophy, requirements for, 25; fees and expenses, 26.
 Doctor of Public Health, established, 7; requirements for, 24; fees and expenses, 26 recipients of, in 1915, 98 candidates for, 99.
 Master of Arts, requirements for, 25; fees and expenses, 26.
 Degrees, first conferred by Medical School in 1788, 7.
 DENNY, G. P., *Asst.*, 19, 56.
 DENORMANDIE, R. L., *Asst.*, 15, 63.
 DERBY, G. S., *Instr.*, 15, 69.
 Dermatology, instruction in, 66 fourth-year electives in, 84, 85.
 DEXTER, F., *Dir. of Scholarships*, 12, 39.
 DODD, W. J., *Instr.*, 17, 59, 79.
 DOISY, E. A., *Asst.*, 20, 51.
 Duane, William, 31.
 DUNN, C. H., *Instr.*, 10, 65.
 EDSALL, D. L., *Prof.*, 9, 12, 56, 58, 77.
 EHRENFRIED, A., *Asst.*, 16, 60.
 Electives, fourth-year, 71 ff.
 ELLSWORTH, S. W., *Asst.*, 14, 59.
 ELY, T. W., *Fellow*, 17, 65.
 Embryological collection, 45.
 Embryology. *See* Anatomy.
 EMERSON, F. P., *Asst.*, 13, 70.
 EMMONS, A. B., *Dir. for Appointments*, 12.
 ERNST, H. C., *Prof.*, 8, 12, 39, 40, 51, 52, 59.
 EUSTIS, R. S., *Fellow*, 18, 65.
 Examinations, general, 23.
 Fabyan, M., *Asst. Prof.*, 11, 53, 54.
 Faculty Council, 11.
 FAULKNER, W. E., *Asso.*, 13, 59.
 FAUNCE, C. B., Jr., *Instr.*, 15, 70.
 Fees and expenses, 25 ff.

- Fellowships, 33-35, 38.
 FITZSIMMONS, H. J., *Fellow*, 17, 63.
 FLEMING, L. N., *Asst.*, 19, 48.
 FLOYD, C., *Instr.*, 15, 51, 52.
 FOLIN, O., *Prof.*, 9, 51.
 FOOT, N. C., *Instr.*, 17, 52, 53.
 FORBES, A., *Instr.*, 11, 48, 50.
 FOSTER, G. LeB., *Fellow*, 19, 51.
 Fourth-year electives. *See* Elec-
 tives.
 FRASER, A. McK., *Asst.*, 17, 44.
 FROTHINGHAM, C., Jr., *Instr.*, 11,
 56, 58, 77.
 GALE, H. A., *Fellow*, 15, 65.
 GHOREYEB, A. A. W., *Austin Fel-
 low*, 20, 52.
 GIBSON, E. T., *Instr.*, 18, 67.
 GOODALE, J. L., *Instr.*, 13, 70.
 GOODPASTURE, E. W., *Instr.*, 18,
 52, 53.
 GOSLINE, H. I., *Asst.*, 19, 67.
 GRABFIELD, G. B., *Fellow*, 19, 55.
 Graduate School of Medicine,
 established, 7, 41; functions of,
 7, 41, 42.
 GRAVES, W. P., *Prof.*, 9, 63, 64, 84.
 GRAY, E., *Asst.*, 18, 60.
 GREEN, R. M., *Instr.* and *Asst.*,
 16, 44, 63, 65, 84.
 GREENE, D. C., *Instr.*, 14, 70, 71.
 GREENOUGH, R. B., *Asst. Prof.*, 10,
 13, 31, 59, 62.
 GRINNELL, F. B., *Instr.*, 19, 55.
 GROVER, J. I., *Fellow*, 18, 65.
 Gynaecology, instruction in, 63,
 64, 65; fourth-year electives in,
 84, 88.
 HALE, W., *Asst. Prof.*, 11, 55, 56.
 HAMMOND, J. W., Jr., *Fellow*, 18, 52.
 HAMMOND, P., *Asso.*, 13, 69.
 HARMER, T. W., *Asst.*, 17, 45.
 HARTWELL, H. F., *Fellow*, 14, 60.
 HARVARD MEDICAL SCHOOL, origin
 of, 7; first degrees conferred by,
 7; new buildings of, 7.
 HARVEY, S. C., *Fellow*, 18, 60.
 HASKELL, H. H., *Instr.*, 13, 69.
 HENDERSON, L. J., *Asst. Prof.*, 10,
 12, 25, 51.
 Histology. *See* Anatomy.
 HOLMES, G. W., *Asst.*, 16, 60.
 HOMANS, J., *Asso.*, 15, 59.
 HONEIJ, J. A., *Fellow*, 17, 52.
 HORNOR, A. A., *Asst.*, 18, 56.
 Hospital appointments, 31.
 HOSPITALS:
 Boston City, 28, 41, 57, 58, 59,
 61, 64, 65, 66, 70, 71, 77, 79,
 81, 82, 84, 87.
 Boston Dispensary, 29, 41, 64,
 65, 66, 79.
 Boston Lying-in, 29, 41, 83.
 Boston State, 30, 41.
 Brigham (Peter Bent), 27, 41,
 57, 58, 59, 61, 73, 77, 81, 87.
 Carney, 41.
 Children's, 29, 41, 59, 61, 65, 66,
 79, 82, 83.
 Danvers State, 41.
 Free Hospital for Women, 30, 41,
 64.
 Huntington (Collis P.) Memo-
 rial, 28.
 Infants', 29, 41, 65, 66, 79, 80.
 McLean, 29, 41.
 Massachusetts Babies', 41.
 Massachusetts, Charitable Eye
 and Ear Infirmary, 30, 41, 69,
 70, 87.
 Massachusetts General, 28, 41,
 54, 57, 58, 59, 61, 65, 66, 67,
 70, 71, 77, 78, 82, 83, 84, 85,
 86, 87.
 Psychopathic, 30, 68, 69, 85, 87.
 HOWARD, A. A., *Instr.*, 17, 65.
 HOWE, W. C., *Sec'y* and *Asst.*, 14,
 60.
 HOWELL, W. W., *Asst.*, 15, 65.
 HUBBARD, J. C., *Asso.*, 14, 59.
 HUNT, REID, *Prof.*, 9, 11, 12, 55, 56.
 HUNT, ROBERT B., *Fellow*, 18, 65.
 Huntington, Mrs. Collis P., 7.

- HUNTINGTON, J. L., *Fellow*, 16, 64, 65.
- HUTCHINS, H. T., *Asst.*, 15, 63, 65, 84.
- Hygiene. *See* Preventive Medicine.
- Instruction, Methods of, 44-88.
- IRVING, F. C., *Fellow*, 18, 64.
- JACOBSON, C., *Asst.*, 16, 60.
- JONES, D. F., *Asso.*, 14, 59.
- JOSLIN, E. P., *Asst. Prof.*, 9, 56.
- KELLOGG, F. S., *Fellow*, 18, 64.
- KNOWLES, W. F., *Instr.*, 13, 69.
- LADD, M., *Instr.*, 14, 65.
- LARRABEE, R. C., *Instr.*, 14, 56.
- Laryngology and Rhinology, instruction in, 70, 71; fourth-year electives in, 87, 88.
- LAWRENCE, C. H., Jr., *Asst.*, 17, 56.
- Legal Medicine, instruction in, 54.
- LEWIS, F. T., *Asso. Prof.*, 10, 11, 44, 73.
- Libraries open to students, 32.
- LINEBACK, P. E., *Fellow*, 19, 45.
- LINENTHAL, H., *Asst.*, 16, 56.
- Little, C. C., 32.
- LLOYD, H. D., *Asst.*, 15, 66.
- LOCKE, E. A., *Instr.*, 10, 56.
- LODER, H. B., *Asst.*, 17, 60, 81.
- LORD, F. T., *Instr.*, 10, 56.
- LOTHROP, H. A., *Asst. Prof.*, 9, 59, 62.
- LOTHROP, O. A., *Asst.*, 17, 70.
- LOVETT, R. W., *Prof.*, 8, 11, 63.
- LOWELL, A. L., *President*, 8, 12.
- LUND, F. B., *Lect.*, 13, 59.
- LUTZ, B. R., *Fellow*, 19, 48, 50.
- LYMAN, H., *Fellow*, 16, 32, 51.
- MACAUSLAND, A. R., *Asst.*, 18, 45.
- MAGRATH, G. B., *Instr.*, 14, 54.
- MALLORY, F. B., *Asso. Prof.*, 9, 11, 52, 75, 84.
- MARTIN, E. G., *Asst. Prof.*, 10, 48, 50.
- MARTIN, J. R., *Fellow*, 16, 48.
- MASON, Miss I. W., 31.
- MASON, N. R., *Asst.*, 15, 63, 65, 84.
- MEANS, J. H., *Fellow*, 18, 56.
- Medbury, Helen G., 12.
- Medical Schools, terms on which graduates of, may be admitted to advanced standing, 21, 22.
- Medicine, instruction in, 56-58; summer courses in, 71; fourth-year electives in, 77, 78.
- Medicine, Department of, 56 ff.
- Medicine, Legal. *See* Legal Medicine.
- Medicine, Tropical. *See* Tropical Medicine.
- Microscopes, 47.
- MILLER, R. H., *Asst.*, 17, 45.
- MIXTER, S. J., *Lect.*, 13, 59.
- MONKS, G. H., *Prof.*, 8.
- Morgan, J. Pierpont, 7.
- Morgan Anatomical Building, 45.
- MORRISON, W. R., *Asst.*, 19, 45.
- MORSE, G. W., *Asst.*, 17, 45.
- MORSE, J. L., *Prof.*, 9, 11, 65, 66.
- MOSHER, H. P., *Asst. Prof.*, 10, 44, 70, 71.
- MOSHER, H. P., *Instr.*, 14.
- Nervous System, Department of diseases of, 67.
- Nervous System, diseases of the, seminary in, 86. And *see* Neurology, Neuropathology, Psychiatry.
- Neurology, instruction in, 68; fourth-year electives in, 86.
- Neuropathology, instruction in, 67, 68; fourth-year electives in, 85.
- NEWBURGH, L. H., *Asst.*, 17, 56.
- NEWELL, F. S., *Asst. Prof.*, 10, 63, 64, 84.
- NICHOLS, E. H., *Asso. Prof.*, 9, 40, 54, 59, 61, 62, 81.

- Obstetrics, instruction in, 63, 64;
summer courses in, 71; fourth-
year elective in, 83.
- O'Hare, J. P., *Asst.*, 18, 56.
- OHLER, W. R., *Austin Fellow*, 20,
52.
- OLIVER, E. L., *Asst.*, 16, 66.
- Oliver, Henry K., 31.
- Ophthalmology, instruction in, 69;
fourth-year electives in, 87, 88.
- Orthopedic Surgery, instruction in,
63; fourth-year electives in, 82,
83.
- OSGOOD, R. B., *Instr.*, 14, 59, 63.
- Otology, instruction in, 69, 70;
fourth-year electives in, 87, 88.
- OVERLANDER, C. L., *Asst.*, 16, 56.
- PAGE, C. G., *Instr.*, 13, 51, 52.
- PALFREY, F. W., *Sec'y and Instr.*,
11, 12, 13, 56.
- PARKER, W. S., *Asst.*, 18, 56.
- Pathology, instruction in, 52-54;
fourth-year electives, 75.
- Pathology, Comparative, instruc-
tion in, 54; fourth-year electives,
76.
- PEABODY, F. W., *Asst. Prof.*, 11,
31, 56, 58.
- Pediatrics, instruction in, 65, 66;
summer courses in, 71; fourth-
year electives in, 79, 80.
- PEMBERTON, F. A., *Fellow*, 18, 64,
65, 84.
- PERCY, K. G., *Fellow*, 18, 65.
- PERRY, H. J., *Asst.*, 14, 51, 52.
- Pharmacology, instruction in, 55,
56; fourth-year elective in, 76.
- PHELPS, E. P., *Asst.*, 19, 51.
- Physiology, instruction in, 48-50;
fourth-year electives in, 73, 74.
- Physiology, Comparative, instruc-
tion in, 50, 51; fourth-year elec-
tives in, 74.
- PIERCE, H. F., *Austin Fellow*, 20,
48, 50.
- PIERCE, R., *Bus. Dir.*, 12, 13.
- PLACE, E. H., *Asst. Prof.*, 11, 65.
- PORTER, C. A., *Asso. Prof.*, 9, 59,
62, 82.
- PORTER, W. T., *Prof.*, 8, 40, 50.
- POST, A., *Prof.*, 8, 66, 67.
- POTTER, W. H., *Prof.*, 8.
- POWERS, G. H., Jr., *Asst.*, 15, 70.
- Practical exercises in medicine and
surgery required of students, 23.
- PRATT, J. H., *Instr.*, 14, 56, 78.
- Preventive Medicine and Hygiene,
Department of, 7.
- Preventive Medicine and Hygiene,
instruction in, 55; fourth-year
electives in, 76.
- Psychiatry, instruction in, 68, 69;
fourth-year elective in, 86.
- QUACKENBOSS, A., *Asst. Prof.*, 9,
69.
- RAYMOND, B., *Asst.*, 20, 48, 50.
- Residence, minimum time of, for
candidates for degree of M.D.,
22.
- Rhinology. *See* Laryngology.
- RICHARDSON, E. P., *Asst.*, 16, 60.
- RICHARDSON, F. L., *Lect.*, 15, 59.
- RISLEY, E. H., *Asst.*, 16, 31, 45.
- ROBEY, W. H., Jr., *Instr.*, 9.
- Rockefeller, John D., 7.
- Roentgenology, fourth-year elec-
tive in, 79.
- ROSENAU, M. J., *Prof.*, 9, 12, 24,
55, 59.
- Scholarships, 35-38.
- SCUDDER, C. L., *Asso.*, 13, 59, 82.
- Sears, David, 7.
- SEARS, G. G., *Prof.*, 8, 12, 56, 58,
77.
- SHANER, R. F., *Fellow*, 20, 45.
- SIMMONS, C. C., *Asst.*, 14, 60.
- SMILLIE, W. G., *Instr.*, 19, 55.
- SMITH, C. M., *Instr.*, 9, 66, 67.
- SMITH, E. H., *Prof.*, 8.
- SMITH, R. M., *Asst.*, 17, 65.

- Smith, Theobald, 31, 40.
 SMITH, W. H., *Instr.*, 10, 56.
 SOLOMON, H. C., *Asst.*, 19, 67.
 SOUTER, W. N., *Instr.*, 13, 69.
 SOUTHARD, E. E., *Prof.*, 10, 54, 67, 68.
 SOUTTER, R., *Instr.*, 14, 63.
 SPALDING, F. M., *Instr.*, 14, 69.
 SPOONER, L. H., *Asst.*, 17, 52.
 SPRUIT, C. B., *Fellow*, 19, 55.
 STEARNS, A. W., *Asst.*, 18, 67.
 STEELE, A. E., *Instr.*, 15, 51, 52.
 STERN, N. S., *Fellow*, 19, 48, 50.
 STILES, P. G., *Instr.*, 10, 48, 50.
 Stillman Infirmary, fee to secure privileges of, 26.
 STODDARD, J. L., *Fellow*, 19, 52.
 STONE, J. S., *Instr.*, 9, 59, 82.
 STORER, M., *Instr.*, 13, 63, 65.
 STRONG, R. P., *Prof.*, 10, 59.
 Students, admission of. *See* Admission.
 Students, division of, into classes, 22; class lists of, 99-108; summary of lists, 108.
 Students, Special, 40.
 Studies, Division of, 43.
 Surgery, Department of, 59.
 Surgery, instruction in, 59-63; Summer courses in, 71; fourth-year electives in, 80-82.
 Surgery, Orthopedic. *See* Orthopedic Surgery.
 SWAIN, H. T., *Instr.*, 14, 63.
 SWIFT, J. B., *Fellow*, 17, 64.
 SYLVESTER, P. H., *Instr.*, 16, 65.
 Syphilis, instruction in, 66, 67; fourth-year elective in, 85.
 TALBOT, F. B., *Instr.*, 16, 65.
 TAYLOR, E. W., *Asst. Prof.*, 9, 67, 68.
 THOMA, K. H., *Asst.*, 19, 45.
 THORNDIKE, A., *Asso.*, 13, 63.
 THORNDIKE, P., *Asst. Prof.*, 8, 59, 81, 82.
 THURINGER, J. M., *Asst.*, 17, 45.
 TITUS, R. S., *Asst.*, 17, 63.
 TOBEY, G. L., Jr., *Asst.*, 15, 70.
 TORBERT, J. R., *Asst.*, 14, 63.
 Tropical Medicine, School of, 7; instruction in, 59; fourth-year electives in, 78, 79.
 TYZZER, E. E., *Asst. Prof.*, 10, 31, 52, 53, 54.
 VERHOEFF, F. H., *Instr.*, 15, 52.
 VINCENT, B., *Asst.*, 15, 60.
 WADSWORTH, R. G., *Fellow*, 15, 64, 65, 84.
 Walcott, Henry P., 31.
 WALKER, D. H., *Instr.*, 14, 70.
 WALKER, I. J., *Asst.*, 17, 60.
 Warren, John, 32.
 WARREN, JOHN, *Asso. Prof.*, 10, 40, 44, 47.
 Warren, John Collins, 32.
 Warren, J. Collins, 31.
 Warren, Anatomical Museum, 32.
 WATERMAN, G. A., *Instr.*, 15, 67.
 WENTWORTH, M. H., *Fellow*, 16, 60.
 WHEELDON, T. F., *Austin Fellow*, 20, 45.
 WHITE, C. J., *Asst. Prof.*, 9, 66.
 WHITE, P. D., *Fellow*, 19, 56.
 WHITNEY, W. F., *Curator*, 8, 32, 40.
 WHITTEMORE, W., *Asst.*, 16, 60.
 WILLIAMS, J. T., *Fellow*, 16, 64, 65.
 Withdrawal from the School, rules concerning, 27.
 WOLBACH, S. B., *Asso. Prof.*, 10, 51.
 WOODY, MACI., *Austin Fellow*, 20, 60.
 WRIGHT, G. H., *Asst.*, 16, 70.
 WRIGHT, J. H., *Asst. Prof.*, 9, 52, 54, 75.
 WYMAN, E. T., *Fellow*, 18, 65.
 YOUNG, E. B., *Instr.*, 14, 63, 84.
 YOUNG, J. H., *Asst.*, 17, 65.
 ZUCKER, T. F., *Asst.*, 19, 51.

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THE HARVARD MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

1916-17

WITH AN ANNOUNCEMENT FOR 1917-18



PUBLISHED BY HARVARD UNIVERSITY

ANNOUNCEMENT
OF THE
MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

OF
HARVARD UNIVERSITY

FOR

1916-17

WITH AN ANNOUNCEMENT FOR 1917-18



PUBLISHED BY THE UNIVERSITY

1916							1917													
JULY							JANUARY							JULY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
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2	3	4	5	6	7	8	7	8	9	10	11	12	13	8	9	10	11	12	13	14
9	10	11	12	13	14	15	14	15	16	17	18	19	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	21	22	23	24	25	26	27	22	23	24	25	26	27	28
23	24	25	26	27	28	29	28	29	30	31	..	..	..	29	30	31	..	..	..	..
30	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AUGUST							FEBRUARY							AUGUST						
..	..	1	2	3	4	5	..	..	..	..	1	2	3	..	..	..	1	2	3	4
6	7	8	9	10	11	12	4	5	6	7	8	9	10	5	6	7	8	9	10	11
13	14	15	16	17	18	19	11	12	13	14	15	16	17	12	13	14	15	16	17	18
20	21	22	23	24	25	26	18	19	20	21	22	23	24	19	20	21	22	23	24	25
27	28	29	30	31	..	..	25	26	27	28	..	..	..	26	27	28	29	30	31	..
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SEPTEMBER							MARCH							SEPTEMBER						
..	..	..	..	..	1	2	..	..	..	..	1	2	3	..	..	..	..	..	..	1
3	4	5	6	7	8	9	4	5	6	7	8	9	10	2	3	4	5	6	7	8
10	11	12	13	14	15	16	11	12	13	14	15	16	17	9	10	11	12	13	14	15
17	18	19	20	21	22	23	18	19	20	21	22	23	24	16	17	18	19	20	21	22
24	25	26	27	28	29	30	25	26	27	28	29	30	31	23	24	25	26	27	28	29
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OCTOBER							APRIL							OCTOBER						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	..	1	2	3	4	5	6
8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
29	30	31	..	..	..	..	29	30	..	..	..	..	..	28	29	30	31	..	..	..
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NOVEMBER							MAY							NOVEMBER						
..	..	..	1	2	3	4	..	..	1	2	3	4	5	..	..	..	..	1	2	3
5	6	7	8	9	10	11	6	7	8	9	10	11	12	4	5	6	7	8	9	10
12	13	14	15	16	17	18	13	14	15	16	17	18	19	11	12	13	14	15	16	17
19	20	21	22	23	24	25	20	21	22	23	24	25	26	18	19	20	21	22	23	24
26	27	28	29	30	..	..	27	28	29	30	31	..	..	25	26	27	28	29	30	..
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DECEMBER							JUNE							DECEMBER						
..	..	..	..	..	1	2	..	..	..	..	..	1	2	..	..	..	..	..	..	1
3	4	5	6	7	8	9	3	4	5	6	7	8	9	2	3	4	5	6	7	8
10	11	12	13	14	15	16	10	11	12	13	14	15	16	9	10	11	12	13	14	15
17	18	19	20	21	22	23	17	18	19	20	21	22	23	16	17	18	19	20	21	22
24	25	26	27	28	29	30	24	25	26	27	28	29	30	23	24	25	26	27	28	29
31	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..

CONTENTS

	PAGE
MEDICAL SCHOOL CALENDAR	5
PRESIDENT AND FELLOWS OF HARVARD COLLEGE	7
THE BOARD OF OVERSEERS OF HARVARD COLLEGE	8
FACULTY OF MEDICINE	10
OTHER INSTRUCTORS	14
AUSTIN TEACHING FELLOWS	21
ADMINISTRATIVE OFFICERS	22
ADMINISTRATIVE OFFICES	22
COMMITTEE OF PROFESSORS	23
ADMINISTRATIVE BOARD	24
FACULTY COUNCIL	24
OTHER COMMITTEES	25
GENERAL STATEMENT	26
MEDICAL SCHOOL BUILDINGS	27
HOSPITAL FACILITIES	27
REQUIREMENTS FOR ADMISSION	28
ADMISSION TO ADVANCED STANDING	29
DIVISION OF STUDENTS	29
EXAMINATIONS	30
DEGREES	31
FEES AND EXPENSES	33
WITHDRAWAL FROM THE SCHOOL	34
DIVISION OF STUDIES	35
METHODS OF INSTRUCTION DURING FIRST THREE YEARS	36
FOURTH-YEAR ELECTIVES	63
TABULAR VIEW OF UNDERGRADUATE COURSES	82
CLINICAL ADVANTAGES	88
(See Index under <i>Hospitals</i> .)	
LIBRARIES	91
WARREN ANATOMICAL MUSEUM	92
HOSPITAL APPOINTMENTS	92
CANCER COMMISSION OF HARVARD UNIVERSITY	92
HARVARD INFANTILE PARALYSIS COMMISSION	93
GRADUATE SCHOOL OF MEDICINE	94
FELLOWSHIPS AND SCHOLARSHIPS	96

BOYLSTON MEDICAL PRIZES	102
OTHER PRIZES	103
DEGREES CONFERRED IN FEBRUARY, 1916	104
DEGREES CONFERRED IN JUNE, 1916	104
CANDIDATES FOR DEGREES	107
SUMMARY	118
GRADUATES OF COLLEGES	118
ANNOUNCEMENT FOR 1917-18	119
INDEX	121

MEDICAL SCHOOL CALENDAR

1916.

- Sept. 13, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 25, Monday.* **Academic Year** begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Thursday.* Columbus Day: a holiday.
- Nov. 30, Thursday.* Thanksgiving Day: a holiday.
- Dec. 8, Friday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.
- Dec. 29, Friday.* Last day for receiving dissertations for the Boylston Medical Prizes.

RECESS FROM DEC. 23, 1916, TO JAN. 2, 1917, INCLUSIVE

1917.

- Jan. 15, Monday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1917.
- Jan. 25, Thursday.* Mid-year Examinations begin.
- Jan. 29, Monday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Thursday.* **Second half-year** begins.
- Feb. 22, Thursday.* Washington's Birthday: a holiday.
- April 2, Monday.* Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 15 TO APRIL 21, INCLUSIVE

- May 1, Tuesday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 1, Tuesday.* Last day for receiving applications for the Bullard Fellowships and the Moseley Travelling Fellowships.

- May 1, Tuesday.* Last day for receiving applications for Scholarships for 1917-18 (except the Cheever, Haven, and Hayden Scholarships).
- May 1, Tuesday.* Last day for receiving applications of candidates for the degree of M.D. in 1917.
- May 30, Wednesday.* Memorial Day : a holiday.
- June 1, Friday.* Examinations begin.
- June 21, Thursday.* Commencement.
- SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 23, INCLUSIVE
- Sept. 12, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 24, Monday.* Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Friday.* Columbus Day : a holiday.
- Nov. 29, Thursday.* Thanksgiving Day : a holiday.
- Dec. 10, Monday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.

THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

This Board is commonly known as the CORPORATION.

PRESIDENT

ABBOTT LAWRENCE LOWELL, A.B., LL.B., LL.D., PH.D.
17 Quincy St., Cambridge

FELLOWS

HENRY PICKERING WALCOTT, A.B., M.D., LL.D.
11 Waterhouse St., Cambridge

HENRY LEE HIGGINSON, A.M., LL.D. 44 State St., Boston

THOMAS NELSON PERKINS, A.B., LL.B. 60 State St., Boston

ROBERT BACON, A.B., LL.D. 1 Park Ave., New York, N. Y.

WILLIAM LAWRENCE, A.B., D.D., LL.D., D.C.L.
122 Commonwealth Ave., Boston

TREASURER

CHARLES FRANCIS ADAMS, A.B., LL.B. 50 State St., Boston

DEPUTY TREASURER

GORHAM BROOKS, A.B. 50 State St., Boston

SECRETARIES TO THE CORPORATION

FRANCIS WELLES HUNNEWELL, 2D, A.B., LL.B.
5 University Hall, Cambridge

ROGER PIERCE, A.B. 5 University Hall, Cambridge

THE BOARD OF OVERSEERS

The PRESIDENT and TREASURER of the University, *ex officio*, and the following persons by election:—

1917*

GEORGE VON LENGERKE MEYER, A.B., LL.D., *President*, Hamilton
WILLIAM COWPER BOYDEN, A.B., LL.B.

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HENRY CABOT LODGE, PH.D, LL.B., LL.D. Washington, D.C.

LAWRENCE EUGENE SEXTON, A.B., LL.B.

34 Pine St., New York, N.Y.

WILLIAM ENDICOTT, A.B.

115 Devonshire St., Boston

1918

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1423 Fourth St., Louisville, Ky.

LOUIS ADAMS FROTHINGHAM, A.B., LL.B.

911 Barristers Hall, Boston

OWEN WISTER, A.M., LL.B., LL.D., L.H.D.

1004 West End Trust Building, Philadelphia, Pa.

FREDERIC ADRIAN DELANO, A.B.

288 Treasury Building, Washington, D.C.

THOMAS WILLIAM LAMONT, A.B. 23 Wall St., New York, N.Y.

1919

GEORGE HERBERT PALMER, A.M., LL.D., LITT.D., L.H.D.

11 Quincy St.

WILLIAM ROSCOE THAYER, A.M., LL.D., LITT.D., L.H.D.

8 Berkeley St.

FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D., S.D.

135 Marlborough St., Boston

LANGDON PARKER MARVIN, A.M., LL.B.

52 Wall St., New York, N.Y.

FREDERICK PERRY FISH, A.B.

84 State St., Boston

* The term expires, in each case, on Commencement Day of the year indicated.

1920

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EVERT JANSEN WENDELL, A.B. 15 W. 38th St., New York, N.Y.
THOMAS WILLIAMS SLOCUM, A.B. 11 Thomas St., New York, N.Y.
JOHN WHITE HALLOWELL, A.B. Milton
EDGAR CONWAY FELTON, A.B. Haverford, Pa.

1921

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WILLIAM DEWITT HYDE, A.B., D.D., LL.D. Brunswick, Me.
WILLIAM SYDNEY THAYER, A.B., M.D., LL.D. 406 Cathedral St., Baltimore, Md.
DWIGHT FILLEY DAVIS, A.B., LL.B. 16 Portland Place, St. Louis, Mo.

1922

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JOHN PIERPONT MORGAN, A.B. 23 Wall St., New York, N.Y.
WILLIAM THOMAS, A.B., LL.B. 310 Sansome St., San Francisco, Cal.
FRANCIS LEE HIGGINSON, Jr., A.B. 44 State St., Boston
ELIOT WADSWORTH, A.B. 1718 H St., Washington, D.C.

SECRETARY OF THE BOARD OF OVERSEERS

WINTHROP HOWLAND WADE, A.M., LL.B. 99 State St., Boston

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GEORGE G. SEARS, M.D., <i>Clinical Professor of Medicine,</i>	426 Beacon St.
WILLIAM P. COOKE, D.M.D., <i>Professor of Prosthetic Dentistry,</i>	330 Dartmouth St.
ALGERNON COOLIDGE, M.D., <i>Professor of Laryngology,</i>	613 Beacon St.
ROBERT W. LOVETT, M.D., <i>John B. and Buckminster Brown Professor of Orthopedic Surgery,</i>	234 Marlborough St.

* Arranged, with the exception of the President, Dean, and Secretary, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

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79 Robert St., Roslindale.
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ical Chemistry, Sharon.
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logical Chemistry, Harvard Medical School.
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and Embryology, Harvard Medical School.
- RALPH F. SHANER, PH.B., *Teaching Fellow in His-*
tology and Embryology, 360 Longwood Ave.
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Harvard Medical School.

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- MACIVER WOODY, M.D., *in Surgery,* Harvard Medical School.
- NOEL G. MONROE, A.B., *in Histology and Embry-*
ology, Harvard Medical School.
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42 Pitman Ave., Greenwood.
- ALFRED C. REDFIELD, S.B., *in Physiology,*
11 Story St., Cambridge.

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL

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Office, 5 University Hall, Cambridge.

Dean: EDWARD H. BRADFORD, M.D.

Office, Administration Building, Medical School. Office hours by appointment.

Secretary of the Faculty: FRANCIS W. PALFREY, M.D.

Office, Administration Building, Medical School. Office hours, Tuesdays, 4 to 5 P.M.

Business Director: ROGER PIERCE, A.B.

Office, Administration Building, Medical School.

Director of Scholarships in the Medical School: FRANKLIN DEXTER, M.D.

Office, Room 386, Building D I, Medical School. Office hours, Mondays, 2 to 3.15 P.M., for appointments.

Director for Appointments for Medical Alumni: A. B. EMMONS, 2d, M.D.

Office, Administration Building, Medical School. Office hours, Mondays and Fridays, 9.30 to 10.30 A.M., and by appointment.

Adviser to Students in Harvard College preparing for the study of Medicine: WALTER B. CANNON, M.D.

Office, 2 Divinity Avenue, Cambridge. Office hours, 7 to 8 P.M., by appointment.

Chairman of the Committee on the Degree of Doctor of Public Health:

MILTON J. ROSENAU, M.D.

Office, Room 238, Building E II, Medical School. Office hours by appointment.

Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences: LAWRENCE J. HENDERSON, M.D.

Office hours by appointment. Telephone, Cambridge 3296-M.

Chief Clerk in the Dean's Office: HELEN G. MEDBURY.

Office, Administration Building, Medical School. Office hours, from 9 to 1 and from 2 to 5 daily, except Saturdays; on Saturdays, from 9 to 1.

ADMINISTRATIVE OFFICES OF THE MEDICAL SCHOOL

The Dean's Office is in the Administration Building of the Medical School, Room 104. It is open daily from 9 to 1 and from 2 to 5, except on Saturdays, Sundays, and holidays; on Saturdays it is open from 9 to 1. Those seeking information about the Medical School should inquire at this office.

The Bursar's Office is in Dane Hall, Harvard University, Cambridge. It is open daily, except Sundays and holidays, from 9 to 1, for the receipt of fees, payments, and other financial business. A representative of the Bursar will be in the Administration Building at the Medical School at stated hours on certain days at the opening of each term for the receipt of fees from regular students.

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HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

The Harvard Medical School started as a branch of the University in 1782 when three professorships of medicine were established. The first degrees in medicine were conferred in 1788. Before 1811, the degree conferred was that of Bachelor of Medicine; after that date the degree of Doctor of Medicine was established. The first Medical School was built in Boston in 1815. In 1906, the Medical School moved into its quarters on Longwood Avenue. For the construction and endowment of these buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors. A number of hospitals have been constructed on the grounds adjacent to the Medical School. A statement in regard to these hospitals and the other hospitals in which teaching is done will be found on pages 88-91 of this catalogue.

In 1910, under the supervision of the Department of Preventive Medicine and Hygiene, courses leading to a degree of Doctor of Public Health were established.

In 1912 the Graduate School of Medicine was established to take charge of the graduate instruction throughout the year, which had previously been given by the Harvard Medical School under the Courses for Graduates and the Summer School of Medicine. The Graduate School of Medicine will also take charge of all special students who are not candidates for the degree of Doctor of Medicine. The School of Tropical Medicine also offers instruction in the Medical School.

The academic year begins on the Monday preceding the last Wednesday in September, and ends on the Thursday preceding the last Wednesday in June. There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

BUILDINGS AND HOSPITAL FACILITIES

The Medical School buildings occupy eleven acres on Longwood Avenue, Boston and are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:— (1) anatomy, comparative anatomy, histology and embryology; (2) physiology, comparative physiology, biological chemistry, and theory and practice of physic; (3) pathology, bacteriology, neuropathology, surgical pathology and tropical medicine; (4) preventive medicine and hygiene, pharmacology, comparative pathology, and surgery.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. The rooms in the various wings have been designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms were originally designed. These buildings provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

At the present time the clinical instruction is carried on in the wards and out-patient departments of the Peter Bent Brigham Hospital, Infants' Hospital (Rotch Memorial), Children's Hospital, and Collis P. Huntington Memorial Hospital, located on grounds adjacent to the Medical School; the Massachusetts General Hospital, Boston City Hospital, Boston Lying-in Hospital, Boston Dispensary, McLean Hospital, Boston State Hospital, Psychopathic Hospital, Massachusetts Charitable Eye and Ear Infirmary, Free Hospital for Women. For a detailed statement of these hospitals, see page 88.

HARVARD MEDICAL SCHOOL BOSTON

REQUIREMENTS FOR ADMISSION

As candidates for the Degree of Doctor of Medicine the School receives the following:

I. Graduates in arts or science of approved colleges or scientific schools * who can furnish evidence

(a) That they have such knowledge of physics, of biology, of general inorganic chemistry, and of organic chemistry,† as may be obtained from one year's course in each of these subjects as given in approved colleges and scientific schools.

(b) That they have a reading knowledge of French or German.

II. Students who have completed two years of work in a college or scientific school of high rank, provided they present certificates (1) that they have stood in the upper third of their class, (2) that one year's course has been taken in physics, in biology, and in general inorganic chemistry and in organic chemistry, and (3) that they have a reading knowledge of French or German.

These requirements are to be satisfied in full before matriculation.

Partial deficiencies in single subjects may be made up prior to admission by courses in the Harvard Summer School.

Students are requested to apply for admission before July 1st on registration blanks to be furnished by the Secretary.

Students registering in the Medical School for the first time will meet in the amphitheatre in the Administration Building, on Monday, preceding the last Wednesday in September, at 10 A.M.

The Administrative Board reserves the right in its discretion to refuse applicants if the number admitted is as large as can be effectively taught.

* It is assumed that before admission to an acceptable college a four years' course in High School or its equivalent will have been completed.

† Courses in physics, general inorganic chemistry and biology (at least one half of which should be zoölogy) should consist of approximately 160 total hours each, or 8 "semester hours"; courses in organic chemistry should consist of approximately 90 total hours, or 4 "semester hours"; all courses should include satisfactory laboratory work.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other approved medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

They must have fulfilled the requirements for admission enumerated under I or II.

They must furnish a satisfactory certificate of time spent in medical study, successfully completed, at least equal to that spent by the class to which they seek admission.

They must furnish satisfactory certificates that they have done satisfactory laboratory and practical work in the subjects already pursued by the class to which they seek admission.

They must pass examinations, or receive credit for all courses required to have been passed by the class which they seek to enter.

Before they can be admitted to the third or fourth class they must pass the first general examination.

Graduates of other medical schools of recognized standing may be admitted to advanced standing in accordance with the above regulations.

The minimum time of residence at this School for candidates for the degree of M.D. shall be one year; all candidates for the degree of M.D. must perform in full the work of the fourth year of the regular curriculum.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required practical examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed the first general examination.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has failed in three or all of the practical examinations on first-year subjects.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Monday, the first day of the academic year.

Students are required not to engage as hospital assistants during term time, except in so far as required by the School curriculum.

Any student may obtain a certificate of his period of connection with the School.

The Faculty reserves the right to require the withdrawal of any student at any time whenever in the opinion of his instructors it is manifest that he is incompetent for his work, or for any reason he is unfitted to continue his course.

EXAMINATIONS

Each student will receive a rating in each course based upon practical examinations or other tests as determined by each Department. Two general examinations will be required of the candidate for the M.D. degree, the first after the completion of the second year, and the second after the completion of the fourth year of medical study. Each consists of a written examination given in two periods on two successive days supplemented, if required, by an oral examination.

For the first general examination the student may choose either June or September, but no student will be admitted to this examination until he has completed the courses included in the examination, and has received satisfactory ratings in these various courses. The subjects comprised in the first general examination will be Anatomy, Histology and Embryology, Physiology, Biological Chemistry, Pathology, Pharmacology, Bacteriology, Physical Diagnosis, Clinical Pathology, Surgical Pathology, and Surgical Technique.

For the second general examination the student may choose either June or January, but no student will be admitted to this examination until he has passed satisfactorily the first general examination, has completed four years of medical study in four different calendar years, including the regular fourth-year course of study at the Harvard Medical School, has completed the courses included in this examination, and has received satisfactory ratings in these courses. The subjects comprised in the second general examination will be Preventive Medicine and Hygiene, Medicine, Surgery, Pediatrics, Obstetrics, Gynaecology, Dermatology, Syphilis, Neurology, Psychiatry, Ophthalmology, Otology and Laryngology.

Any student who fails three times in a general examination will be debarred from further attempts.

If a portion of the general examination (written or oral) is taken by a student, this will constitute an attempt to pass the examination. Failure to complete all parts, unless prevented by illness, shall be regarded as a failure to pass.

In addition to the above examinations every student is required:—

To dissect the three parts of the body to the satisfaction of the demonstrator;

To take charge of and report on six cases in Obstetrics, under supervision and instruction;

To furnish satisfactory evidence of having engaged in the practical exercises in Medicine and Surgery.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass a practical examination, each student must pay a fee of three dollars at the Dean's office before appearing for each additional practical examination in the same subject.

DEGREES

DEGREE OF DOCTOR OF MEDICINE

Every candidate for the degree of DOCTOR OF MEDICINE at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent in the regular fourth-year course of this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates entering the Medical School previous to 1912-13 who have obtained an average of eighty per cent, or over, in all the required examinations.

Candidates entering the Medical School in and after 1912-13, who pass the final general examination with honor, shall receive the degree of Doctor of Medicine *cum laude*, and candidates who pass both general examinations with honor shall receive the degree of Doctor of Medicine *magna cum laude*.

For special and approved purposes students may be allowed to take a portion of their work elsewhere than at the Harvard Medical School, provided that it be determined by the Dean, in consultation with the Administrative Board and the head of a Department, that this may be allowed, and provided that the student pass an examination on this work after its completion conducted by a member of the Faculty of the Harvard Medical School.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

DEGREE OF DOCTOR OF PUBLIC HEALTH

The degree of Doctor of Public Health is open to holders of the degree of Doctor of Medicine from the Harvard Medical School or other recognized Medical Schools, and to other properly qualified persons. Candidates for the degree of Doctor of Public Health must spend not less than one year in work upon a special subject, approved by the Committee on the Degree of Doctor of Public Health, and present a thesis containing some original research acceptable to the Faculty of Medicine. Candidates for this degree may be given credit for any course offered in any department of the University, provided it has the approval of the Faculty of Medicine, and candidates from other institutions may be admitted to advanced standing. A minimum of one year in residence shall be required of all candidates for the degree of Doctor of Public Health. Information in regard to this degree may be had from Professor M. J. ROSENAU, Chairman of the Committee on the Degree of Doctor of Public Health.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of A.M. and Ph.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students.

Candidates for the degree of Master of Arts must be Bachelors of Arts of Harvard College, or Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences. Candidates must pursue an approved course of study in medical science for at least one year.

Candidates for the degree of Doctor of Philosophy must fulfil certain preliminary requirements, must devote to approved advanced studies not less than two years — at least one of which must be spent in residence at this University, and must pass general examinations and present an account of original work in an accepted thesis, before being granted the degree.

Further information concerning these degrees may be obtained from Assistant Professor LAWRENCE J. HENDERSON, Chairman of the Division of Medical Sciences, 4 Willard Street, Cambridge, Mass.

FEES AND EXPENSES

DEGREE OF DOCTOR OF MEDICINE

The fees are :—For matriculation, five dollars ; for instruction (including laboratory charges except breakage, damage and loss of apparatus), two hundred and twenty-five dollars for each year (if in two payments, at the first, one hundred and thirty-five dollars ; at the second, ninety dollars) ; for a half-year alone, one hundred and thirty-five dollars.* The matriculation fee and the instruction fee (if in two payments, the first instalment thereof) are to be paid to the Bursar† punctually at the beginning of the academic year, without the presentation of a bill ; and the second instalment is to be paid on or before January 31. On or before January 31, first-year students are to make a deposit of ten dollars with the Bursar to cover charges for breakage, damage and loss of apparatus, during the first and second years in accordance with the requirements established by the several departments in which they occur. A student may rent a microscope from the School upon application to the Committee on Microscopes. A deposit of one dollar with the Dean will entitle the student to the use of a locker in the School buildings.

No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

BOND REQUIRED OF STUDENTS

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School and have subsequently received their bond from the Bursar.

* Students who were members of the School in 1912-13 or earlier will be allowed to complete the course for the fees prescribed in the Catalogue of 1912-13.

† The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

DEGREE OF DOCTOR OF PUBLIC HEALTH

A fee of \$150 annually is charged for tuition, and \$5 for matriculation. Of this amount, \$95 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31. No degree can be conferred until all dues to the University have been discharged.

DEGREES OF MASTER OF ARTS AND DOCTOR OF PHILOSOPHY

For these degrees, a fee of \$150 is charged for tuition, and a graduation fee of \$20. Of this amount, \$90 must be paid to the Bursar at the beginning of the academic year without the presentation of a bill; the remaining \$60 must be paid on or before January 31st. The graduation fee of \$20 must be paid before Commencement. No degree can be conferred until all dues to the University have been discharged.

STILLMAN INFIRMARY FEE

Not later than October 5 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

WITHDRAWAL FROM THE SCHOOL

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. *No degree can be granted until the student has paid the full tuition fee for each year (first, second, third, fourth) in which he has been registered as a member of the School.*

If a student withdraws from the School for part of a year for good and sufficient reason as determined by the Faculty, he may leave his fees deposited with the Bursar to be used at some later date for instruction equivalent to that which he missed by his withdrawal. If a student shortens his four years' work by working in the Summer School of Medicine, he must still pay a full tuition fee for each year he is registered as a member of the School.

DIVISION OF STUDIES

DIVISION OF STUDIES

35

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH-YEAR ELECTIVES	
Anatomy	Bacteriology	Medicine	Anatomy 1, 2, and 3	Surgery 1, 2, 3, 4, 5, 6, and 7
Histology and Embryology	Pathology	Surgery	Physiology 1 and 2	Orthopedic Surgery 1 and 2
Physiology	Anatomy	Obstetrics	Comparative Physiology 1 and 2	Obstetrics and Gynaecology 1, 2, and 3
Biochemistry	Preventive Medicine and Hygiene	Pediatrics	Biochemistry 1	Dermatology 1, 2, and 3
	Pharmacology	Dermatology	Bacteriology 1	Syphilis 1
	Physical Diagnosis	Syphilis	Pathology 1, 2, 3, and 4	Neuropathology 1 and 2
	Clinical Pathology	Neurology	Comparative Pathology 1, 2, 3, and 4	Neurology 1
	Surgical Pathology	Psychiatry	Preventive Medicine and Hygiene 1 and 2	Psychiatry 1
	Surgical Technique	Genito-Urinary Surgery	Pharmacology 1	Ophthalmology 1, 2, and 3
	<i>Medicine</i>	<i>Legal Medicine</i>	Medicine 1, 2, 3, 4, 5, and 6	Otology 1, 2, 3, and 4
	<i>Surgery</i>		Tropical Medicine	Laryngology 1, 2, and 3
	<i>Neurology</i>		Röntgenology 1	Combined Course in Specialties* and Surgical Anatomy.
	<i>Dermatology</i>		Pediatrics 1, 2, 3, and 4	Friday afternoons devoted to class exercises.

NOTE. — Subjects not completed in a given year are in *italics*. In the fourth year, electives must be chosen aggregating 1000 hours; both half-courses and quarter-courses are offered occupying 125 and 65 hours respectively.

* Orthopedic Surgery, Gynaecology, Ophthalmology, Otology, and Laryngology, are specialties given in the fourth year.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE
TABULAR VIEWS

B.C.H.	= Boston City Hospital.
B.D.	= Boston Dispensary.
B.S.H.	= Boston State Hospital (Pierce and Austin Farms).
B.L.H.	= Boston Lying-in Hospital.
C.H.	= Children's Hospital.
E. and E.I.	= Massachusetts Charitable Eye and Ear Infirmary.
F.H. for W.	= Free Hospital for Women.
H.M.S.	= Harvard Medical School.
H.M.H.	= Huntington Memorial Hospital.
I.H.	= Infants' Hospital (Rotch Memorial).
McL.H.	= McLean Hospital.
M.G.H.	= Massachusetts General Hospital.
P.B.B.H.	= Peter Bent Brigham Hospital.
P.H.	= Psychopathic Hospital.
S.D.B.C.H.	= South Department, Boston City Hospital.
S.O.P.D.	= Surgical Out-Patient Department.

Anatomy

— — —, *James Stillman Professor of Comparative Anatomy and Director of the Laboratory of Anatomy.*

DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy and Associate in Surgery.*

JOHN L. BREMER, M.D., *Associate Professor of Histology.*

FREDERIC T. LEWIS, M.D., *Associate Professor of Embryology.*

HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology and Instructor in Anatomy.*

JOHN WARREN, M.D., *Associate Professor of Anatomy.*

ALEXANDER S. BEGG, M.D., *Instructor in Comparative Anatomy.*

EDWARD A. BOYDEN, A.M., *Instructor in Comparative Anatomy.*

ROBERT M. GREEN, M.D., *Instructor in Anatomy.*

KURT H. THOMA, D.M.D., *Instructor in Dental Anatomy.*

JOHN BRYANT, M.D., *Assistant in Anatomy.*

ARCHIBALD MCK. FRASER, M.D., *Assistant in Anatomy.*
DONALD M. GLOVER, A.B., *Assistant in Histology and Embryology.*
TORR W. HARMER, M.D., *Assistant in Anatomy.*
GEORGE A. LELAND, M.D., *Assistant in Anatomy.*
ANDREW R. MACAUSLAND, M.D., *Assistant in Anatomy.*
FRANK W. MARVIN, M.D., *Assistant in Anatomy.*
RICHARD H. MILLER, M.D., *Assistant in Anatomy.*
WILLIAM R. MORRISON, M.D., *Assistant in Anatomy.*
GEORGE W. MORSE, M.D., *Assistant in Anatomy.*
EDWARD H. RISLEY, M.D., *Assistant in Anatomy.*
ALBERT A. SHAPIRA, M.D., *Assistant in Anatomy.*
FRANK H. ROSE, A.B., *Teaching Fellow in Histology and Embryology.*
RALPH F. SHANER, PH.B., *Teaching Fellow in Histology and Embryology.*
ZABDIEL D. ADAMS, M.D., *Fellow in Anatomy.*

NOEL G. MONROE, A.B., *Austin Teaching Fellow in Histology and Embryology.*

In this department instruction is given in Anatomy, Comparative Anatomy, Histology and Embryology. The department occupies the Morgan Anatomical Building, the dissecting rooms being in the wing designated BI, and the laboratories for Histology, Embryology, and Comparative Anatomy in the wing BII. There are separate rooms for fourth-year and graduate students and for various kinds of technical work. The class work is carried on by sections in unit rooms, designed to accommodate twelve or twenty-four students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about ten thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for work in human and comparative anatomy and embryology.

The Embryological Collection is a unique feature of the laboratory. It comprises over nineteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes sixty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet obtained. The collection of embryological models contains the standard series and many unique original models.

REGULAR COURSES

First Year.—This course is intended to teach the normal, gross anatomy, histology, and embryology of the human body. Half of the time is devoted to work in the dissecting room, the other half to work in the histological and embryological laboratories. In the study of gross anatomy, each student makes a complete dissection of one-half of the human body, and all of the class dissect the same part at the same time. Two men will be assigned to the same subject, and will work together during the course. The study of the skeleton is carried on with the dissection, and each student will be provided with a box of bones which may be kept throughout the course. There will be daily lectures and demonstrations which are arranged to correspond as closely as possible with the work in the dissecting room. These lectures will serve not only as a guide to the regular work in the dissecting room, but will also be used to emphasize these details of human anatomy which the student cannot easily study for himself in his own dissection. Special dissections made by prosectors from the second year class, frozen sections, and various anatomical specimens and preparations will be displayed each day to illustrate and supplement that part of the subject treated in the lecture, or about to be studied in the dissecting room. Students are urged to examine these specimens carefully, and to discuss them informally with the instructors. A study room will be provided for purposes of review, and it will be equipped with various dissections and preparations. This room will be placed in charge of a committee of the class who will be expected to assume full responsibility for its proper use. Students will be quizzed each week on their work in the laboratory by the instructors in charge of their section. There will also be a certain number of written tests on Saturday mornings and one or two oral practical examinations before the final practical examination.

The part of the course dealing with microscopic anatomy is a study of cells, tissues, and organs, from the developmental standpoint. Cell structure and the fundamental tissues are considered first. This is followed by a study of chick embryos of 30 and 48 hours and pig embryos of 20 days, in which special stress is laid on the origin and growth of the different organs. During the remainder of the course the organs of the adult are studied in succession. In connection with the uterus, the human placenta and fetal membranes are considered. The month of January is devoted to the central nervous system and sense organs.

Microscopes.—Every student is strongly urged to purchase a microscope, which is a necessity in this and other courses in the School, and constantly useful in later years. The instructors will gladly advise students in regard to such purchases. Those not thus provided may rent microscopes at four dollars for the course.

FIRST YEAR

October, November, December, and January

HOURS

Lectures. Assoc. Professors WARREN and BREMER. <i>Eleven lectures a week, nine hours.</i>	144
Demonstrations. <i>To sections of the class, at the pleasure of the instructors.</i>	
Laboratory work. <i>Six and one-half hours, five times a week.</i>	520

Second-Year Anatomy

The course in second-year anatomy begins on the first of February and lasts for nine weeks. The class will be divided into three sections, and each section will have approximately four hours per week. The work will consist chiefly of the careful study and drawing of selected frozen sections of the human body. Anatomical charts, special dissections, and preparations will be continuously displayed in the laboratory to illustrate the various structures seen in the sections. The drawings are to be handed in at frequent intervals for correction, and they will be discussed with each student. There will be also frequent informal, individual quizzes and discussions as the work progresses. The work in the laboratory is planned to be carried on in close coöperation with the clinical courses in medicine and surgery, and the students are strongly urged to compare the anatomical structures seen in the study of the frozen sections, especially of those through the body cavities, with the conditions found in the physical examination of patients in the hospital wards and clinics. This association between the anatomical laboratory and the clinical courses should be regarded as of a great practical importance. The course is also intended to serve as a topographical review of the work of the first year, and there will be a final written examination which will cover the work in both the first and second-year courses in anatomy.

SECOND YEAR

February and March

Laboratory work to sections of the class, <i>four hours per week.</i>	36
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INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 65.

Physiology

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

PERCY G. STILES, Ph.D., *Assistant Professor of Physiology.*

CECIL K. DRINKER, M.D., *Instructor in Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

McKEEN CATTELL, S.B., *Teaching Fellow in Physiology.*

HENRY A. R. KREUTZMANN, M.D., *Teaching Fellow in Physiology.*

BRENTON R. LUTZ, S.B., *Teaching Fellow in Physiology.*

HAROLD F. PIERCE, A.B., *Teaching Fellow in Physiology.*

ALFRED C. REDFIELD, S.B., *Austin Teaching Fellow in Physiology.*

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and eighty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis in Physiology, based upon reading of the records of original investigations, is ordinarily required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. Wednesday mornings are largely devoted to work in the Library. Some of the theses, which are closely related to the regular instruction, are presented before the class. Among those read publicly during the past academic years were: Color-blindness, Heart-block, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is quizzed orally every week by the instructing staff. Usually at the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. The examination books are returned, corrected, to the students. Five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Students who have had, before entering this course, a large part of the laboratory work or much laboratory experience may be permitted to coöperate with members of the staff in special investigations. Such students are excused from the preparation of theses.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 66.

FIRST YEAR (Second half)

HOURS

Laboratory experiments. Professor CANNON, Asst. Professor STILES, Dr. DRINKER and Messrs. CATTELL, LUTZ, PIERCE and REDFIELD. <i>Daily.</i>	180
Quizzes (14). PROFESSOR CANNON. <i>One hour Saturdays.</i>	10
Written tests (5). <i>One hour Mondays.</i>	5
Lectures (90). Professor CANNON, Asst. Professor STILES and Drs. DRINKER and FORBES	90
Special demonstrations (30). Professor CANNON and Dr. FORBES.	15
Discussion of Theses (30).	20
Thesis. Written by each student from the original sources.	
Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.	

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the professor in charge.

II. *Comparative Physiology of Muscle.* Professor PORTER. *Three hours weekly during February and March.*

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. *Mondays and Thursdays, 5 to 6 P.M., throughout the year.*

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 66.

Biological Chemistry

OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*

WALTER R. BLOOR, Ph.D., *Assistant Professor of Biological Chemistry.*

LAWRENCE J. HENDERSON, M.D., *Assistant Professor of Biological Chemistry.*

GOODWIN LEB. FOSTER, A.B., *Assistant in Biological Chemistry.*

THEODORE F. ZUCKER, S.M., *Assistant in Biological Chemistry.*
 EDWARD A. DOISY, A.B., *Teaching Fellow in Biological Chemistry.*
 RICHARD D. BELL, M.D., *Research Fellow in Biological Chemistry.*
 HENRY LYMAN, M.D., *Research Fellow in Biological Chemistry.*

EDWARD P. PHELPS, S.M., *Austin Teaching Fellow in Biological Chemistry.*

First Year.—The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, and of the general principles and more important facts of physiological chemistry.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 67.

FIRST YEAR (Second half)

HOURS

Lectures. Professor FOLIN and Asst. Professor BLOOR. <i>One hour, five times a week.</i>	80
Laboratory work. Professor FOLIN, Asst. Professor BLOOR and Messrs. DOISY, FOSTER, PHELPS, and ZUCKER. <i>Two and one-half hours, five times a week.</i>	200

Bacteriology

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*
 S. BURT WOLBACH, M.D., *Associate Professor of Bacteriology and Pathology.*
 CLEVELAND FLOYD, M.D., *Instructor in Bacteriology.*
 CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*
 ALBERT E. STEELE, M.D., *Instructor in Bacteriology.*
 HORACE K. BOUTWELL, M.D., *Assistant in Bacteriology.*
 JOHN W. HAMMOND, JR., M.D., *Assistant in Bacteriology.*
 HENRY J. PERRY, M.D., *Assistant in Bacteriology.*
 LESLIE H. SPOONER, M.D., *Assistant in Bacteriology.*

———, *Austin Teaching Fellow in Bacteriology.*

Second Year.—Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 67.

SECOND YEAR

HOURS

Lectures. Professor ERNST. <i>Daily, except Saturdays, during October and November.</i>	40
Laboratory work. Professor ERNST and Drs. BOUTWELL, FLOYD, PAGE, PERRY, SPOONER, and STEELE. <i>Two to three hours daily during October and November.</i>	120

Pathology

WILLIAM T. COUNCILMAN, M.D., LL.D., *Shattuck Professor of Pathological Anatomy.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

S. BURT WOLBACH, M.D., *Associate Professor of Pathology and Bacteriology. Chairman of the Department.*

JAMES H. WRIGHT, M.D., S.D., *Assistant Professor of Pathology.*

NATHAN C. FOOT, M.D., *Instructor in Pathology.*

LEROY U. GARDNER, M.D., *Instructor in Pathology.*

ERNEST W. GOODPASTURE, M.D., *Instructor in Pathology.*

HARRY S. BERNSTEIN, M.D., *Assistant in Pathology.*

FRANCIS L. BURNETT, M.D., *Assistant in Pathology.*

ALBERT A. W. GHOREYEB, M.D., *Assistant in Pathology.*

MACIVER WOODY, M.D., *Assistant in Pathology.*

———, *Austin Teaching Fellow in Pathology.*

Second Year.—The course in Pathology consists of laboratory work and lectures. The basis of the laboratory work is the systematic course in pathological histology. In connection with this there are demonstrations of fresh material and museum specimens and experiments on animals bearing on the subjects studied. In this work the students are divided into small sections. The demonstrations are given to these sections and the experimental work on anaesthetized animals is carried out by the sections under the direction of Dr. Woody, who superintends this branch of the work. The demonstrations and experimental work are given in

rooms adjoining the main laboratory which are adequately provided with apparatus. Both the demonstrations and experiments are in connection with the subjects which are being studied. Lectures are given five days in the week, the object of the lectures being rather to expand and coördinate the knowledge which the student is acquiring by his study of material than to impart new information. During the entire period of the course groups of students are sent to the various hospitals to see and assist in post-mortem examinations. Each group prepares microscopical specimens of the tissues from each autopsy they attend, and immediately afterwards meets for a conference with one of the instructors and the whole case is reviewed and discussed. At these conferences the clinical history of the case is read and as far as possible the pathological findings are correlated with the clinical features. No attempt is made to separate the subject of Pathology into general pathology and pathological anatomy, but the subject is studied as a whole. The more important organs of the body are covered, towards the end of the course with reference to their special pathology, particularly the blood, liver, spleen, kidneys, pancreas and genitalia. In teaching the student is taught methods of work, is given material, and directed, but he is taught to work independently. Tumors and other material coming from the surgical clinics are made full use of in the course.

On Saturdays conferences and recitations are substituted for the regular laboratory work.

In the forenoons of the third and fourth weeks of January, Professor TYZZER and Assistant Professor FABYAN give a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are :—

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 67.

SECOND YEAR

HOURS

Lectures. Professor COUNCILMAN, Assoc. Professors MALLORY and WOLBACH, and Asst. Professor WRIGHT. *Daily for fourteen weeks, October, November, December, and January (first two weeks only).*

Laboratory work. Professor COUNCILMAN, Assoc. Professor WOLBACH, Drs. FOOT, GARDNER, BERNSTEIN, BURNETT, WOODY, and GHOREYEB. <i>Three hours daily during the forenoons of October, November, December, and January (first two weeks only.)</i>	252
Demonstrations and laboratory work. Professor TYZZER and Asst. Professor FABYAN. <i>Two hours daily, third and fourth weeks of January.</i>	24
Demonstration of autopsy material. Asst. Professor J. H. WRIGHT. (M.G.H.) <i>One hour a week.</i>	
Neuropathology. Professor SOUTHARD. <i>Afternoons in December.</i>	45
Surgical Pathology. Professor NICHOLS. <i>Afternoons in January.</i>	36

Legal Medicine

GEORGE B. MAGRATH, M.D., *Instructor in Legal Medicine.*

Second Year. — (1) Demonstrations of the pathological conditions met with in death following injuries of various sorts, and in sudden death, in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital, during the forenoons of the first half-year, to sections assigned by the Pathological Department upon notification from Dr. MAGRATH.

(2) Instruction in the technique of medico-legal post-mortem examinations to be given coincidentally with (1).

Fourth Year. — Optional course; second half-year. (1) Instruction in the pathological conditions met with in death following injury, and in sudden death, by the case method, with special reference to the clinical and the medico-legal aspects in each case. Exercises based on autopsy, with discussion of the case, and held in the post-mortem rooms of the North District Morgue and of the Massachusetts General Hospital.

(2) Legal Medicine: medicine in its relation to the requirements of law. Systematic lectures (not less than twelve) dealing with matters of importance to the physician, alike as practitioner and as a witness in court.

Comparative Pathology

ERNEST E. TYZZER, M.D., *George Fabyan Professor of Comparative Pathology.*

MARSHAL FABYAN, M.D., *Assistant Professor of Comparative Pathology.*

J. HOWARD BROWN, S.M., *Assistant in Comparative Pathology.*

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 68.

SECOND YEAR

Lectures. Professor TYZZER. (H.M.S.)	<i>One hour daily, second and third weeks of January.</i>	12
Demonstrations and laboratory work. Professor TYZZER and Asst. Professor FABYAN.	<i>Two hours daily, second and third weeks in January.</i>	24

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D.,	<i>Professor of Preventive Medicine and Hygiene.</i>
J. PENTEADO BILL, M.D.,	<i>Instructor in Preventive Medicine and Hygiene.</i>
FRANCIS B. GRINNELL, M.D.,	<i>Instructor in Preventive Medicine and Hygiene.</i>
LEVERETT D. BRISTOL, M.D.,	<i>Boston Dispensary Research Fellow in Hygiene.</i>
WOLFERT G. WEBBER, M.D.,	<i>Charles Follen Folsom Teaching Fellow in Hygiene.</i>

Second Year.—The course in Preventive Medicine and Hygiene consists of lectures and demonstrations, laboratory work, sanitary survey, and sanitary excursions. The laboratory work includes the bacteriological and chemical analysis of water and milk, the determination of a carbolic coefficient, making a bacterial vaccine, testing fumigants, chemical and physical examination of the air, etc. Each student is required to make a sanitary survey of some city or town and make a report thereon. The sanitary excursions consist of visits to a vaccine and antitoxin laboratory, to a dairy, etc.

Fourth Year.—For a description of the fourth-year course offered in this department, see page 69.

SECOND YEAR

HOURS

Lectures and demonstrations.	<i>One hour, twice a week, second half-year.</i>	32
Laboratory and Sanitary Survey.	<i>Two hours, twice a week, second half-year.</i>	64

Pharmacology

REID HUNT, M.D.,	<i>Professor of Pharmacology.</i>
WORTH HALE, M.D.,	<i>Assistant Professor of Pharmacology.</i>

Courses in pharmacology are given in the second and in the fourth years. In the second year the instruction is given by lectures, recitations,

demonstrations, and a laboratory course in which the students have an opportunity of learning the physical and chemical properties of the most important drugs and of performing experiments illustrating the physiological actions of a number of these. A few exercises are given in pharmacy and materia medica, the work consisting of demonstrations and practical exercises. Some attention is also given to toxicology. During the fourth year an opportunity is offered to students of doing more advanced work in experimental pharmacology.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 70.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor HUNT and Asst. Professor	
HALE. <i>One hour, three times a week, second half-year.</i>	48
Laboratory work. <i>Two hours, twice a week, second half-year.</i>	32

Medicine

HENRY A. CHRISTIAN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

DAVID L. EDSALL, M.D., S.D., *Jackson Professor of Clinical Medicine.*

GEORGE G. SEARS, M.D., *Clinical Professor of Medicine.*

RICHARD C. CABOT, M.D., *Assistant Professor of Medicine.*

ELLIOTT P. JOSLIN, M.D., *Assistant Professor of Medicine.*

FRANCIS W. PEABODY, M.D., *Assistant Professor of Medicine.*

CHANNING FROTHINGHAM, M.D., *Instructor in Medicine.*

EDWIN A. LOCKE, M.D., *Instructor in Medicine.*

FREDERICK T. LORD, M.D., *Instructor in Medicine.*

WILLIAM H. ROBEY, Jr., M.D., *Instructor in Medicine.*

WILLIAM H. SMITH, M.D., *Instructor in Medicine.*

RALPH C. LARRABEE, M.D., *Instructor in Medicine.*

FRANCIS W. PALFREY, M.D., *Instructor in Medicine.*

JOSEPH H. PRATT, M.D., *Instructor in Medicine.*

GERALD BLAKE, M.D., *Assistant in Medicine.*

HAROLD BOWDITCH, M.D., *Assistant in Medicine.*

MARTIN J. ENGLISH, M.D., *Assistant in Medicine.*

ALBERT A. HORNOR, M.D., *Assistant in Medicine.*

CHARLES H. LAWRENCE, Jr., M.D., *Assistant in Medicine.*

HARRY LINENTHAL, M.D., *Assistant in Medicine.*

GEORGE R. MINOT, M.D., *Assistant in Medicine.*

JAMES P. O'HARE, M.D., *Assistant in Medicine.*

WILLIAM R. OHLER, M.D., *Assistant in Medicine.*

CHARLES L. OVERLANDER, M.D., *Assistant in Medicine.*
WILLARD S. PARKER, M.D., *Assistant in Medicine.*
WILLIAM D. SMITH, M.D., *Assistant in Medicine.*
GEORGE P. DENNY, M.D., *Alumni Assistant in Medicine.*
FRANCIS M. RACKEMANN, M.D., *Alumni Assistant in Medicine.*
JOSEPH C. AUB, M.D., *Teaching Fellow in Medicine.*
DAVID A. HALLER, M.D., *Teaching Fellow in Medicine.*
JAMES H. MEANS, M.D., *Teaching Fellow in Medicine.*
PAUL D. WHITE, M.D., *Teaching Fellow in Medicine.*

The instruction given by the Department of Medicine consists of both clinical and laboratory work. The clinical work is given by means of lectures, amphitheatre clinics, and practical work in the out-patient department and wards of the hospitals. Laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research.

The general plan of the work will be to instruct the students during the second half of the second year in the methods of history-taking, physical examination, clinical laboratory technique, prescription writing and therapeutics, to drill the students in the third year as assistants in the out-patient departments of the hospitals, and in the fourth year to give them continued contact with patients by having them serve as clinical clerks in the hospital wards. Much of this work will be conducted in small sections, while lectures and amphitheatre clinics will be given for the class with the view of presenting to the students a more comprehensive knowledge of medicine. This instruction will be in part at the Harvard Medical School, in part at the Peter Bent Brigham Hospital, the Massachusetts General Hospital, the Boston City Hospital, and several of the special hospitals. In these hospitals an abundant and varied clinical material is available for the conduct of these various exercises.

Second and Third Years.—Lectures and recitations. Lectures and recitations on physical diagnosis, therapeutics and selected medical subjects will be given at the Medical School.

Amphitheatre Clinics.—Clinical lectures in which the students are called upon to take an active part will be given in the amphitheatre of the Peter Bent Brigham Hospital, the Massachusetts General Hospital, and the Boston City Hospital.

Clinical Exercises.—Small sections of the class will be drilled thoroughly in the hospitals in the taking of histories, methods of physical examination, and in the examination of urine, blood, sputum, and gastric

contents. The section work in physical diagnosis will be conducted in coöperation with the second year course in anatomy in which the anatomical relations of the thoracic and abdominal viscera are studied in relation to surface markings and physical signs.

Laboratory. — Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 70.

SECOND YEAR		HOURS
Lectures and recitations on physical diagnosis. Dr. ROBEY. (P.B. B.H.) <i>Twice a week for six weeks, second half-year.</i>		12
Lectures and recitations on therapeutics and prescription writing. Dr. FROTHINGHAM. (H.M.S. or P.B.B.H.) <i>Twice a week for ten weeks, second half-year.</i>		20
Clinical lectures. Professor SEARS. (B.C.H.) <i>Once a week, second half-year.</i>		16
Lectures. Professor EDSALL. (M.G.H.) <i>Once a week, second half-year.</i>		16
Exercises in sections, conducted by assistants under the general supervision of Dr. ROBEY. <i>Each student has fifty-two exercises, supplemented by demonstrations and recitations for the entire class.</i>		78
Laboratory exercises. Assistant Professor PEABODY and assistants. <i>Three times a week, second half-year. Two hour periods.</i>		96

THIRD YEAR		HOURS
Lectures on selected topics. Professor CHRISTIAN. (P.B.B.H.) <i>Twice a week, first half-year.</i>		32
Case teaching, exercises and discussion of selected topics. Asst. Professor CABOT. (H.M.S.) <i>Twice a week, second half-year.</i>		32
Lectures on applied therapeutics. Professor SEARS. (H.M.S.) <i>Once a week, second half-year.</i>		16
Amphitheatre clinics. Professor CHRISTIAN. (P.B.B.H.) <i>Once a week, throughout the year.</i>		32
Amphitheatre clinics. Professor EDSALL (M.G.H.) and Professor SEARS. (B.C.H.) <i>Once a week, throughout the year.</i>		32

Exercises in sections as student assistants in the out-patient departments at the M.G.H., B.C.H., or P.B.B.H. *Each section has forty-eight exercises of three hours each.*

144

FOURTH YEAR

A service of not less than two months as clinical clerk in the medical wards of the M.G.H., B.C.H., or P.B.B.H. is required of each student, except for those who take at least two months in surgery, in which case one month of medicine is required.

Tropical Medicine

RICHARD P. STRONG, M.D., *Professor of Tropical Medicine*, will supervise the instruction in Tropical Medicine. Professors HAROLD C. ERNST, MILTON J. ROSENAU, and HENRY A. CHRISTIAN will constitute an Advisory Board.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 71.

Surgery

The Department of Surgery includes surgery, clinical surgery, operative surgery, surgical pathology, surgical technique, genito-urinary surgery, Roentgenology, and the laboratory of surgical research.

HARVEY CUSHING, M.D., S.D., F.R.C.S., *Moseley Professor of Surgery*.

EDWARD H. NICHOLS, M.D., *Clinical Professor of Surgery*.

CHARLES A. PORTER, M.D., *Clinical Professor of Surgery*.

J. BAPST BLAKE, M.D., *Assistant Professor of Surgery*.

HUGH CABOT, M.D., *Assistant Professor of Genito-Urinary Surgery*.

DAVID CHEEVER, M.D., *Assistant Professor of Surgical Anatomy and Associate in Surgery*.

ROBERT B. GREENOUGH, M.D., *Assistant Professor of Surgery*.

HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery*.

CHARLES L. SCUDDER, M.D., *Assistant Professor of Surgery*.

PAUL THORNDIKE, M.D., *Assistant Professor of Genito-Urinary Surgery*.

JAMES S. STONE, M.D., *Instructor in Surgery*.

FREEMAN ALLEN, M.D., *Instructor in Anaesthesia*.

WALTER J. DODD, M.D., *Instructor in Roentgenology*.

JOHN HOMANS, M.D., *Instructor in Surgery*.

HALSEY B. LODER, M.D., *Instructor in Surgery*.

ROBERT B. OSGOOD, M.D., *Instructor in Surgery and Orthopedic Surgery*.

- FRANK L. RICHARDSON, M.D., *Instructor in Anaesthesia.*
FARRAR COBB, M.D., *Associate in Surgery.*
FREDERIC J. COTTON, M.D., *Associate in Surgery.*
WILLIAM E. FAULKNER, M.D., *Associate in Surgery.*
JOSHUA C. HUBBARD, M.D., *Associate in Surgery.*
DANIEL F. JONES, M.D., *Associate in Surgery.*
FRED B. LUND, M.D., *Associate in Surgery.*
JAMES D. BARNEY, M.D., *Assistant in Genito-Urinary Surgery.*
HORACE BINNEY, M.D., *Assistant in Genito-Urinary Surgery.*
WILLIAM J. BRICKLEY, M.D., *Assistant in Surgery.*
PERCY BROWN, M.D., *Assistant in Roentgenology.*
ROBERT C. COCHRANE, M.D., *Assistant in Surgery.*
ERNEST G. CRABTREE, M.D., *Assistant in Genito-Urinary Surgery.*
SAMUEL W. ELLSWORTH, M.D., *Assistant in Roentgenology.*
SOMERS FRASERS, M.D., *Assistant in Surgery.*
HARRY F. HARTWELL, M.D., *Assistant in Surgery.*
JOHN B. HARTWELL, M.D., *Assistant in Surgery.*
FRANCIS F. HENDERSON, M.D., *Assistant in Surgery.*
OTTO J. HERMANN, M.D., *Assistant in Surgery.*
GEORGE W. HOLMES, M.D., *Assistant in Roentgenology.*
WALTER C. HOWE, M.D., *Assistant in Surgery.*
CONRAD JACOBSON, M.D., *Assistant in Surgery.*
RICHARD H. MILLER, M.D., *Assistant in Surgery.*
WILLIAM C. QUINBY, M.D., *Assistant in Surgery.*
EDWARD P. RICHARDSON, M.D., *Assistant in Surgery.*
CHANNING C. SIMMONS, M.D., *Assistant in Surgery.*
EDWARD B. TOWNE, M.D., *Assistant in Surgery.*
BETH VINCENT, M.D., *Assistant in Surgery.*
ROBERT H. VOSE, M.D., *Assistant in Surgery.*
IRVING J. WALKER, M.D., *Assistant in Surgery.*
MARK H. WENTWORTH, M.D., *Assistant in Surgery.*
WYMAN WHITTEMORE, M.D., *Assistant in Surgery.*
GILBERT HORRAX, M.D., *Alumni Assistant in Surgery.*
WILLIAM S. MCCANN, M.D., *Arthur Tracy Cabot Fellow in charge of
the Laboratory of Surgical Research.*
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MACIVER WOODY, M.D., *Austin Teaching Fellow in Surgery.*

Instruction will be given by lectures, clinical lectures, demonstrations, and recitations, together with section teaching in the laboratories of surgical pathology and of surgical research, and in the wards and out-patient departments of the hospitals. Elective courses will be given in the laboratories of the Harvard Medical School, and in the wards and operating rooms of the hospitals.

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department. Arrangements can be made for such instruction with the Instructor in Roentgenology.

Second Year.—The course in surgery begins in January of the second year. The afternoons in January will be given to surgical pathology, and to surgical therapeutics on alternate days. Laboratory exercises in surgical pathology will be given three days a week, in which will be studied the healing of wounds, fractures, diseases of the bones and joints, and such aspects of pathology as are of special surgical importance. Two clinical lectures a week, illustrating the lesions studied in the laboratory of surgical pathology, will be given at the Boston City Hospital. On two days a week the class will be divided into two sections for practical exercises in surgical operative therapeutics.

The systematic course of lectures, clinical lectures, demonstrations and recitations will begin in February of the second year—one lecture, one recitation and two clinical lectures a week. In the first two weeks the lectures and clinics will be devoted to surgical therapeutics. The general principles of surgery, beginning with trauma, hemorrhage, sepsis, etc., will be taken up in successive weeks, and illustrated by clinical lectures and demonstrations, until the end of the second half of the second year. During the first nine weeks of the second half of the second year, beginning February 1, section work in surgical technique will be given. Each student will have twelve laboratory exercises of two hours each, on the application of bandages and surgical apparatus, and the preparation and use of surgical material and dressings. Additional exercises will be given in sections, in the hospitals, on the practical application of bandages and surgical appliances. This course in surgical technique is designed to prepare the student for the required two months' "dresser" service in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. Satisfactory service in this capacity during the third year is a necessary requirement for the degree.

Third Year.—During the third year, one lecture, one recitation, and two clinical lectures a week will be given throughout the year. On Wednesday a lecture will be given at the Brigham Hospital at 12.30 P.M., for the whole class. On Tuesday at 12 M. two clinical lectures will be given, one at the Boston City Hospital and one at the Massachusetts General Hospital, either of which may be attended by the student having section work at one or the other hospital. During May twelve surgical hours, in morning and in afternoon exercises, will be devoted to genito-urinary surgery, and sections of the class will be assigned to short terms of service in the Genito-Urinary Departments.

Fourth Year. — Opportunity is afforded in the fourth-year elective courses for practical work in the wards and operating rooms of the hospitals, P.B.B.H., M.G.H., B.C.H., and C.H. For a description of the fourth-year courses offered by this department, see page 73.

	SECOND YEAR	HOURS
Laboratory course in Surgical Pathology. Professor NICHOLS. (H.M.S.) <i>Twelve three-hour exercises during January.</i>		36
Laboratory course in Surgical Therapeutics. Professor CUSHING and Associates. (H.M.S.) <i>Eight three-hour exercises during January.</i>		24
Clinical lectures in connection with the course in Surgical Pathology. Professor NICHOLS. (B.C.H.) <i>Eight exercises during January.</i>		8
Clinical lectures in Surgical Therapeutics. Professor CUSHING. (P.B.B.H.) <i>Four exercises during January.</i>		4
Laboratory course in Surgical Therapeutics. Professor PORTER and Asst. Professor LOTHROP and assistants. <i>Eighteen two-hour exercises for each student during the second half of the second year.</i>		36
Lectures and demonstrations. Professors CUSHING, NICHOLS, and PORTER, and Associates. (H.M.S.) <i>Once a week, second half-year.</i>		16
Recitations. Asst. Professors LOTHROP and GREENOUGH. <i>Once a week, second half-year.</i>		16
Clinical lectures. Professor PORTER and Asst. Professor GREENOUGH (M.G.H.), Professor NICHOLS and Asst. Professors LOTHROP and BLAKE (B.C.H.). <i>Twice a week, second half-year.</i>		32

THIRD YEAR

Lectures and demonstrations. Professors CUSHING, PORTER, and NICHOLS, and Associates. <i>Once a week, first and second half-year.</i>	32
Clinical lectures. Professor CUSHING. (P.B.B.H.) <i>Once a week, first and second half-year.</i>	32
Clinical lectures given contemporaneously at the M.G.H. and B.C.H. Professor PORTER and Asst. Professor GREENOUGH (M.G.H.) or Professor NICHOLS and Asst. Professors LOTHROP and BLAKE (B.C.H.). <i>Once a week, first and second half-year.</i>	32
(During May of the third year, four morning and eight afternoon exercises will be devoted to genito-urinary surgery. Asst. Professor HUGH CABOT. (H.M.S. and M.G.H.))	

Recitations. Asst. Professors LOTHROP and GREENOUGH. (H.M.S.) <i>Once a week, first half-year.</i>	16
Case teaching. Asst. Professor BLAKE. (H.M.S.) <i>Once a week, beginning February 1st.</i>	16
Out-patient Surgical Dresser Service. Exercises in sections. Each student has forty-eight exercises of three hours each.	144

FOURTH YEAR

A service of not less than two months as clinical clerk in the surgical wards of the M.G.H., B.C.H., or P.B.B.H., is required of each student, except for those who take at least two months in Medicine, in which case one month of surgery is required.

Pediatrics

JOHN L. MORSE, M.D., <i>Professor of Pediatrics.</i>
EDWIN H. PLACE, M.D., <i>Assistant Professor of Pediatrics.</i>
CHARLES H. DUNN, M.D., <i>Instructor in Pediatrics.</i>
FRITZ B. TALBOT, M.D., <i>Instructor in Pediatrics.</i>
HENRY I. BOWDITCH, M.D., <i>Instructor in Pediatrics.</i>
ARTHUR A. HOWARD, M.D., <i>Instructor in Pediatrics.</i>
MAYNARD LADD, M.D., <i>Instructor in Pediatrics.</i>
PHILIP H. SYLVESTER, M.D., <i>Instructor in Pediatrics.</i>
THEODORE W. ELY, M.D., <i>Assistant in Pediatrics.</i>
RICHARD S. EUSTIS, M.D., <i>Assistant in Pediatrics.</i>
HAROLD A. GALE, M.D., <i>Assistant in Pediatrics.</i>
JOSEPH I. GROVER, M.D., <i>Assistant in Pediatrics.</i>
WILLIAM W. HOWELL, M.D., <i>Assistant in Pediatrics.</i>
ROBERT B. HUNT, M.D., <i>Assistant in Pediatrics.</i>
KARLTON G. PERCY, M.D., <i>Assistant in Pediatrics.</i>
RICHARD M. SMITH, M.D., <i>Assistant in Pediatrics.</i>
EDWIN T. WYMAN, M.D., <i>Assistant in Pediatrics.</i>
JAMES H. YOUNG, M.D., <i>Assistant in Pediatrics.</i>
LEWIS W. HILL, M.D., <i>Alumni Assistant in Pediatrics.</i>

Third Year.—The material for instruction is drawn from the Infants' Hospital, the Children's Hospital, the South Department of the Boston City Hospital, and from the Children's Departments of the Massachusetts General Hospital and the Boston Dispensary. Lectures and recitations are given on certain selected topics preparatory for the clinical teaching. Clinical lectures are given at the Children's Hospital and at the Infants' Hospital. Sectional teaching at the bedside and in the out-patient departments of the various hospitals is given throughout the year and comprises

a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital, where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. By means of the very large amount of Pediatric material in the contagious wards, the general subject of Pediatrics as connected with contagious diseases is especially explained and illustrated. Exercises in case teaching are given in the latter part of the year. The students are also given instruction in lumbar puncture and in various laboratory procedures especially applicable to children. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

THIRD YEAR	HOURS
Lectures, recitations or case teaching. Professor MORSE and assistants. (H.M.S.) <i>Once a week, throughout the year.</i>	32
Clinical lectures. Professor MORSE and assistants. (Ch.H. or I.H.) <i>Once a week, throughout the year.</i>	32
Section Teaching. (Ch.H., I.H., M.G.H., B.D., and S.D.B.C.H.) <i>Throughout the year. Each student attends twenty-four exercises during the year.</i>	72

Dermatology and Syphilology

- CHARLES J. WHITE, M.D., *Edward Wigglesworth Professor of Dermatology.*
 C. MORTON SMITH, M.D., *Assistant Professor of Syphilology.*
 FREDERICK S. BURNS, M.D., *Instructor in Dermatology.*
 HENRY D. LLOYD, M.D., *Assistant in Syphilology.*
 E. LAWRENCE OLIVER, M.D., *Assistant in Dermatology.*

DERMATOLOGY

Third Year. — Section work in clinical dermatology at the Massachusetts General Hospital throughout the year, each section receiving instruction for two weeks from 9 A.M. to 12 P.M. daily.

In April and May the class meets for eight hours at the Medical School, the instruction consisting of lectures covering all the common, important diseases illustrated by the epidiascope.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 77.

SECOND YEAR

HOURS

Clinical lectures. Professor WHITE. (M.G.H.) *Once a week, second half-year.* 16

THIRD YEAR

Lectures on the Anatomy and Therapeutics of the Skin. (Illustrated.) Professor WHITE. (H.M.S.) *Last eight weeks, second half-year.* 8

Section work. Clinical Dermatology. Drs. BURNS and OLIVER. (M.G.H.) *Each student attends twelve exercises.* 36

SYPHILOLOGY

Third Year. — Lectures and clinical instruction are given at the Massachusetts General Hospital.

THIRD YEAR

HOURS

Lectures. Asst. Professor SMITH. (H.M.S.) *Every other week, first half-year.* 8

Clinical lectures. Asst. Professor SMITH. (M.G.H.) *Once a week, September 26 to November 20.* 8

Clinical exercises. Asst. Professor SMITH and Dr. LLOYD. (M.G.H.) *Each student attends twelve exercises, in sections.* 36

Diseases of the Nervous System

The Department of Diseases of the Nervous System is composed of the sub-departments of Neuropathology, Neurology, and Psychiatry.

ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology.*

HERMAN M. ADLER, M.D., *Assistant Professor of Psychiatry.*

EDWARD W. TAYLOR, M.D., *Assistant Professor of Neurology.*

JAMES B. AYER, M.D., *Instructor in Neurology and Assistant in Neuropathology.*

HARRY C. SOLOMON, M.D., *Instructor in Neuropathology.*

ABRAHAM MYERSON, M.D., *Associate in Neuropathology.*

HAROLD I. GOSLINE, M.D., *Assistant in Neuropathology.*

LAWSON G. LOWREY, M.D., *Assistant in Neuropathology.*

ARTHUR P. NOYES, M.D., *Assistant in Psychiatry.*

ALBERT W. STEARNS, M.D., *Clinical Assistant in Psychiatry.*

GEORGE CLYMER, M.D., *Alumni Assistant in Neurology.*

DOUGLAS A. THOM, M.D., *Research Fellow in Neuropathology.*

NEUROPATHOLOGY

Second Year.—The course consists of lectures, laboratory work, and demonstrations, with tests, review exercises, and quizzes as required. A brief review is given of the anatomy required for grasping the pathological physiology of the nervous system. The lectures introduce conceptions of value for the third-year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. The laboratory work is mainly histopathological, dealing with the inflammatory reactions, the classical degenerations, and (in brief) with important entities such as general paresis of the insane and tabes dorsalis. To illustrate the simpler physiological applications of the work, special demonstrations are given to the students in groups at certain State institutions.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 77.

SECOND YEAR	HOURS
Lectures. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	12
Laboratory work. Professor SOUTHARD and assistants. <i>Two hours daily, afternoons in December.</i>	24
Written and practical tests. Professor SOUTHARD and assistants. <i>Afternoons in December.</i>	9
Demonstrations at State institutions, voluntary. Special.	

NEUROLOGY

Second Year.—Clinical lectures are given at the Massachusetts General Hospital to the entire class, once a week throughout the second half of the year. The object of the course is to give the student a general knowledge of the principles of diagnosis and treatment of diseases of the nervous system as a preparation for later work. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of specimens and photographs. (c) Study of cases as they present themselves at the out-patient department of the hospital and in the wards

Third Year.—Clinical lectures are given during certain months of the third year at the Massachusetts General Hospital. The members of the class are also required to take practical work in the out-patient department in sections throughout the year. This work is practical in character and serves to bring the student into immediate contact with patients.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 78.

SECOND YEAR

HOURS

Clinical lectures. Asst. Professor TAYLOR. (M.G.H.) *Once a week, second half-year.* 16

THIRD YEAR

Clinical lectures. Asst. Professor TAYLOR. (M.G.H.) *Once a week, November 20 to December 30 and during May.* 8
 Section teaching. Each student attends twelve exercises in Neurology. 36

PSYCHIATRY

THIRD YEAR

During January, February, March, and April a clinical lecture will be given once a week at the Psychopathic Hospital. The different forms of mental disease will be discussed and patients exhibiting the symptoms under consideration will be presented.

During the first half-year a series of eight lectures will be given at the Harvard Medical School. This course is designed to present to the students the modern points of view in regard to insanity and the psychoneuroses and the mental diseases of adolescence.

Supplementary instruction is given to the class in small sections in the wards and out-patient department of the Psychopathic Hospital. Each student will examine and report on at least one case of insanity or mental defect.

THIRD YEAR

HOURS

Lectures. Asst. Professor ADLER. (H.M.S.) *Once a week, eight weeks, first half-year.* 8
 Clinical lectures. Asst. Professor ADLER. (P.H.) *Once a week, January, February, March, and April.* 16
 Section teaching. Each student attends twelve exercises in Psychiatry. 36

Obstetrics and Gynaecology

WILLIAM P. GRAVES, M.D., *Professor of Gynaecology.*

FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology.*

MALCOLM STORER, M.D., *Instructor in Gynaecology.*

ERNEST B. YOUNG, M.D., *Instructor in Gynaecology.*

ROBERT L. DENORMANDIE, M.D., *Assistant in Obstetrics.*

ROBERT M. GREEN, M.D., *Assistant in Obstetrics and Gynaecology.*

JAMES L. HUNTINGTON, M.D., *Assistant in Obstetrics.*

FREDERICK C. IRVING, M.D., *Assistant in Obstetrics.*

FOSTER S. KELLOGG, M.D., *Assistant in Obstetrics.*

NATHANIEL R. MASON, M.D., *Assistant in Obstetrics and Gynaecology.*

FRANK A. PEMBERTON, M.D., *Assistant in Gynaecology.*

JOHN B. SWIFT, M.D., *Assistant in Obstetrics.*

JAMES R. TORBERT, M.D., *Assistant in Obstetrics.*

RICHARD G. WADSWORTH, M.D., *Assistant in Gynaecology.*

JOHN T. WILLIAMS, M.D., *Assistant in Gynaecology.*

RAYMOND S. TITUS, M.D., *Alumni Assistant in Obstetrics.*

OBSTETRICS

Third Year.—Instruction is given by lectures, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, under supervision and instruction, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 75.

SECOND YEAR

HOURS

Lectures. Asst. Professor NEWELL. (H.M.S.) *Once a week, second half-year.*

16

THIRD YEAR

Lectures and conferences on Obstetrics. Asst. Professor NEWELL and assistants. (H.M.S.) *Twice a week, first half-year. Once a week, second half-year.*

48

Practical instruction in Clinical Obstetrics. By members of the Department. *Throughout the year.*

GYNAECOLOGY

Instruction is given by lectures in the third year and recitations, and clinical teaching in the fourth year. Clinics are held in the out-patient departments of the Free Hospital for Women and Boston Dispensary, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

THIRD YEAR

HOURS

Lectures. Professor GRAVES. (H.M.S.) *Every other week, first half-year.*

8

FOURTH YEAR

Clinical exercises. Professor GRAVES, and Drs. PEMBERTON and WADSWORTH (F.H. for W.), Dr. STORER (B.D.), and Drs. GREEN, MASON and WILLIAMS. (B.C.H.) *In sections, throughout the year. Each student attends twelve exercises.*

36

Electives. See page 75.

Orthopedic Surgery

ROBERT W. LOVETT, M.D., *John B. and Buckminster Brown Professor of Orthopedic Surgery.*

ELLIOTT G. BRACKETT, M.D., *Assistant Professor of Orthopedic Surgery.*

ROBERT B. OSGOOD, M.D., *Instructor in Orthopedic Surgery and Surgery.*

ROBERT SOUTTER, M.D., *Instructor in Orthopedic Surgery.*

AUGUSTUS THORNDIKE, M.D., *Instructor in Orthopedic Surgery.*

ZABDIEL B. ADAMS, M.D., *Assistant in Orthopedic Surgery.*

CARL H. BUCHOLZ, M.D., *Assistant in Orthopedic Surgery.*

HENRY J. FITZSIMMONS, M.D., *Assistant in Orthopedic Surgery.*

FRANK R. OBER, M.D., *Assistant in Orthopedic Surgery.*

Instruction is given in Orthopedic Surgery by lectures at the Harvard Medical School in the first half of the third year, and in the fourth year by clinical demonstrations at the Children's Hospital.

THIRD YEAR

HOURS

Lectures. Professor LOVETT. (H.M.S.) *Every other week, second half-year.*

FOURTH YEAR

Clinical Demonstrations. Professor LOVETT and Asst. Professor BRACKETT, and Drs. OSGOOD, SOUTTER and A. THORNDIKE (Ch.H.) In sections throughout the year. *Each student has twelve exercises.*

36

Electives. See page 75.

Ophthalmology

———, *Williams Professor of Ophthalmology.*

ALEXANDER QUACKENBOSS, M.D., *Assistant Professor of Ophthalmology.*

FREDERICK H. VERHOEFF, M.D., *Assistant Professor of Ophthalmic Research.*

GEORGE S. DERBY, M.D., *Instructor in Ophthalmology.*

HENRY H. HASKELL, M.D., *Instructor in Ophthalmology.*

WILLIAM N. SOUTER, M.D., *Instructor in Ophthalmology.*

FRED M. SPALDING, M.D., *Instructor in Ophthalmology.*

CLIFFORD B. WALKER, M.D., *Assistant in Ophthalmology.*

Instruction in Ophthalmology consists of lectures at the Medical School in the third year and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary in the fourth year.

THIRD YEAR

HOURS

Lectures. (H.M.S.) *Every other week, second half-year.* 8

FOURTH YEAR

Clinical exercises. Asst. Professor QUACKENBOSS and Drs. DERBY, HASKELL, and SPALDING. (E. and E.I.) *In sections, every week during the year. Twelve exercises for each student.* 36

Electives. See page 79.

Otology

———, *Walter Augustus Lecompte Professor of Otology.*

EUGENE A. CROCKETT, M.D., *Assistant Professor of Otology.*

FRANCIS P. EMERSON, M.D., *Instructor in Otology.*

CALVIN B. FAUNCE, Jr., M.D., *Instructor in Otology.*

PHILIP HAMMOND, M.D., *Instructor in Otology.*

WILLIAM F. KNOWLES, M.D., *Instructor in Otology.*

GEORGE H. POWERS, M.D., *Instructor in Otology.*

GEORGE L. TOBEY, Jr., M.D., *Instructor in Otology.*

DAVID H. WALKER, M.D., *Instructor in Otology.*

HENRY P. CAHILL, M.D., *Assistant in Otology.*

OLIVER A. LOTHROP, M.D., *Assistant in Otology.*

Otology

Instruction is given by lectures at the Harvard Medical School in the third year and clinical instruction in the fourth year every morning for two weeks at the Massachusetts Eye and Ear Infirmary with anatomical and histological demonstrations at the Harvard Medical School.

THIRD YEAR

HOURS

Lectures. Asst. Professor CROCKETT. (H.M.S.) *Every other week, first half-year.* 8

FOURTH YEAR

Clinical exercises in sections. (E. and E.I.) *Every student receives twelve exercises during the year.* 36

Electives. See page 79.

Laryngology and Rhinology

ALGERNON COOLIDGE, M.D., *Professor of Laryngology.*

HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology.*

HARRY A. BARNES, M.D., *Instructor in Laryngology.*

JOHN H. BLODGETT, M.D., *Instructor in Laryngology.*

ROCKWELL A. COFFIN, M.D., *Instructor in Laryngology*

JOSEPH L. GOODALE, M.D., *Instructor in Laryngology.*

D. CROSBY GREENE, M.D., *Instructor in Laryngology.*

GEORGE H. WRIGHT, D.M.D., *Assistant in Laryngology.*

Laryngology

Instruction consists of lectures in the third year, and in the fourth year each section is assigned for the mornings of two weeks to the clinic of the Massachusetts General Hospital. In addition to clinical instruction, frequent special exercises or demonstrations will be given.

THIRD YEAR

HOURS

Lectures. Professor COOLIDGE and Asst. Professor MOSHER assisted by Drs. GOODALE and WRIGHT. (H.M.S.) *Every other week, first half-year.*

8

FOURTH YEAR

Clinical exercises. Professor COOLIDGE, Asst. Professor MOSHER, and Drs. BARNES and GREENE (M.G.H.), BLODGETT and COFFIN (B.C.H.). *Forty-eight hours for each student.* Electives. See page 80.

48

FOURTH-YEAR ELECTIVES

The fourth year is divided into eight periods, or "months," in which each student is required to take not less than three months in courses in which he serves as medical or surgical clinical clerk in hospital wards (Medicine 1, 2, 3, and 4; Surgery 1, 2, and 3), and one month each in Pediatrics and in Obstetrics, two months in a combined course including Gynaecology, Laryngology, Otology, Ophthalmology, Orthopedic Surgery and Surgical Anatomy, and one month in an elective, with the exception that students who, having attained a high standing in their Medical School work, desire to devote the whole or a part of their fourth year to one subject of study. To such students, on the recommendation of a Department head, permission to devote the whole or a part of the fourth year to one subject of study may be granted by vote of the Faculty Council, if a petition to this effect is presented with the choice of electives.

In Medicine, Surgery, Pediatrics and Obstetrics summer courses are provided under the administration of the Graduate School of Medicine by taking which students may be excused, with the approval of the Head of the Department concerned and of the Faculty Council, from taking the equivalent required work of the fourth year, and be granted the privilege of taking in place of such courses additional elective courses.

On Fridays throughout the year afternoon work in all courses will be replaced by class exercises.

The electives of the fourth year are given as half-courses, quarter-courses, and full courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of one hundred and twenty-five hours. Quarter-courses occupy half the day for one month. Two quarter-courses equal a half-course. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

The final choice of electives must be left at the Dean's office on or before May 21. No changes in electives will be allowed after the final assignments are made, except (1) for urgent reasons, when after the Secretary has first been consulted a petition approved in writing by the instructors concerned and presented to the Administrative Board not less than three weeks before the beginning of the first elective month involved has been granted, and (2) when a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, in which case he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's courses are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department, subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

No student may select a fourth-year elective, covering a subject still owing in the work of the first three years, without the consent of the head of the Department in writing.

Those who desire to obtain additional elective months may take summer courses in certain required subjects which, with the approval of the Head of the Department concerned and of the Faculty Council, will free them from the necessity of taking courses in these subjects in the winter term, thus enabling them to fill the periods devoted to these subjects with electives. The taking of summer courses, however, shall not excuse the student from devoting himself to courses of the school during any part of the regular term. Summer courses of the Graduate School of Medicine which may be used to anticipate the requirements of special subjects are described on page 81.

The class will be divided into four groups, which provides for one month of elective work for each student. Students will, therefore, file at the Dean's Office *not later than May 21st*, on blanks provided for the purpose, (a) their preferences among courses in required subjects and (b) their choice of electives, with alternatives, to fill one month, mornings and afternoons.

FOURTH-YEAR COURSES ARRANGED UNDER DEPARTMENTS

ANATOMY.

[Under this Heading are included the Courses in Anatomy, Comparative Anatomy, Embryology, and Histology.]

Anatomy 1. Prescribed Course. Assistant Professor CHEEVER and Assistants. Quarter-courses, monthly throughout the year.

This is the course in anatomy which forms the part of the required Combined Course in Specialties and Surgical Anatomy. It is a course in applied and surgical anatomy designed to emphasize and explain such parts of general anatomy as are of practical importance. Less important details are studied briefly or omitted altogether, according to their deserts, but ample opportunity is given to the student who desires it to review the chief facts of general anatomy or to pay especial attention to regions in which he is interested.

Instruction is by demonstrations, dissection, the study of frozen sections, and specimens and informal quizzes. The greatest importance is attached to the verification by the student in his own dissection of the facts presented by the instructor.

Anatomy 2. Advanced Vertebrate Embryology. Associate Professor LEWIS. Half-course, all day, in a month to be arranged with the student.

An elementary knowledge of embryology, such as may be obtained from first-year Embryology is required. Course 5, offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

This course consists chiefly of laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction, will be required.

Special organs or groups of organs may be studied according to the special needs of the students.

The *Manual of Human Embryology*, edited by Keibel and Mall, will be used as a text-book and original publications will be consulted. At the discretion of the instructor students may have access to the extensive embryological collection and to the collection of models, many of which were made in the Harvard Laboratory.

Anatomy 3. Advanced Histology. Associate Professor BREMER. Half-course, all day, one month, April.

This course includes the study of the genesis and adult histology of special organs, or groups of organs, according to the needs of the individual student, and the principal methods of histological technic, used in such study.

PHYSIOLOGY.

Physiology 1. Half-courses, or quarter-courses, forenoons, afternoons, or all day, first half-year; afternoons, second half-year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation.

Students properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Following are some suggestions for research which may readily be conducted in the Laboratory:—

Quantitative studies of human sensory and motor thresholds under various conditions, including the effects of stimulants and narcotics; the effects of toxins and poisons on the nervous system in experimental animals; the excitability of the “centers” of the medulla under various conditions. Studies in the physiology of the central nervous system. Studies of problems in the movements of the stomach and intestines, and in the activities of glands of internal secretions.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous

system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, ear, and upper respiratory tract. Afternoons, except Friday and Saturday, in December and January.

BIOCHEMISTRY.

Biochemistry 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

BACTERIOLOGY.

Bacteriology 1. Half-courses, forenoons or afternoons, February and March.

These electives will be of five kinds, including (*a*) instruction in methods of diagnosis, depending upon bacteriological procedures; (*b*) instruction in methods of bacteriological diagnosis in use in health board laboratories, including the examination of waters and soils; (*c*) instruction in methods of opsonic-index work, with practical application; (*d*) special studies of spirochaetes and trypanosomes (open during both the first and second half-years, but should be taken for at least two months); (*e*) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

Note.— Under special conditions, electives begun before may be continued through April and May.

PATHOLOGY.

Pathology 1. Professor F. B. MALLORY. Half-courses or quarter-courses, all day or forenoons, throughout the year.

This course is given in the pathological laboratory of the Boston City Hospital. Every student must furnish his own microscope

The work consists of attendance at autopsies and of the study of the tissues obtained at them. In addition much time is devoted to the microscopic study of the most interesting lesions which have been collected at the laboratory during the last eighteen years. In this way the special pathology of the liver, kidneys, heart, blood vessels, lungs, and other organs is covered and the student is encouraged to correlate what he sees with the clinical experience which he has already received.

Pathology 2. Assistant Professor J. H. WRIGHT. Half-courses, all day, December, January, February, and March.

This course is given in the pathological laboratory of the Massachusetts General Hospital.

The work consists of (a) training in the technical methods used in pathology; (b) attendance at post-mortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Each course limited to four men, and will not be given as quarter-courses for two months.

Pathology 3. Half-courses, mornings or afternoons, second half-year.

This course is given in the laboratory of pathology, H.M.S., and is open to men acceptable to the head of the department who wish to take up research work in pathological anatomy or in experimental pathology. The problems will be arranged by consultation between students and the head of the department. Not more than two men will be received in any one course.

Pathology 4. Professor W. T. COUNCILMAN and Instructor. Half-courses, all day, February, March, April, and May.

This course will consist in the general work of the Pathological Laboratory of the Peter Bent Brigham Hospital, emphasis being placed upon the inter-relation of clinical and pathological work. Limited to two men in each course.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Professor TYZZER, Assistant Professor FABYAN and Assistants. Half-course, afternoons, October and November. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microorganisms investigated. At the same time attention will be given to changes in the character of the diseases, due to different degrees of artificially induced immunity.

Comparative Pathology 2. Research. Professor E. E. TYZZER. Students who have taken Course 1 or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

Comparative Pathology 3. Protozoölogy. Professor E. E. TYZZER. Quarter-course, mornings, October and November.

The course in protozoölogy will include a general discussion of the morphology and life history of the more important human protozoan parasites, such as the amoebae, flagellata (trypanosomes, the parasites of kala azar and oriental sore), sporozoa (malarial parasites), and ciliata. Their relations to their definitive, and to intermediate hosts will also be discussed, together with phenomena of immunity. Methods for the cultivation of certain parasites and suitable procedures for collecting, staining, and mounting will be discussed.

Comparative Pathology 4. Helminthology. Professor E. E. TYZZER. Quarter-course, mornings, February.

The course in helminthology will include the differentiation and classification of species and instruction in collecting, preserving, staining, and mounting the parasites and their ova, and the cultivation of the parasites when possible. The human cestodes, trematodes, and nematodes will be considered in detail. Certain species of the acanthocephala, the pentastomida and hirudinea will also be discussed.

PREVENTIVE MEDICINE AND HYGIENE

Preventive Medicine and Hygiene 1. Quarter-course, afternoons, March only.

The students will investigate public methods in greater detail than is possible in the second-year course. The work will include field surveys epidemiological studies, public health laboratory methods, etc. In addition to the regular work, each student must make a special investigation of some public health problem.

The course is limited to ten men. Students must see the instructor in charge before enrolling in the course.

Preventive Medicine and Hygiene 2. Half-courses, all day, March or April.

The course is intended for those students who desire to investigate some special phase of public health work. Arrangements for this course must be made with the head of the department.

The course is limited to two men.

PHARMACOLOGY.

Pharmacology 1. Half-course, all day, or quarter-courses, mornings or afternoons, in October.

The work in this course is designed for students who wish to become familiar with general chemical and physiological methods of detecting poisons, and with chemical and physiological methods of drug assay, or with methods for the detection of food adulterants.

MEDICINE.

Medicine 1. Full courses, all day, throughout the year.

This work will be given at the Massachusetts General Hospital. Each course will be limited to ten students. Students will serve as clinical clerks in the wards of the hospital and will have opportunity to systematically study the patients. Work in the wards may be supplemented by work in the out-patient department. Ample facilities will be furnished for the laboratory investigation of the patients. This course will be given under the supervision of Professor EDSALL and Assistant Professor CABOT. Each student electing the course must take it for at least two consecutive months, unless he has already had a course in Medicine 2 or 3, in which case he may take one or more further months in this course.

Medicine 2. Full courses, all day, throughout the year.

This work will be given at the Peter Bent Brigham Hospital. Each course will be limited to eight students. Students will serve as clinical clerks in the wards of the hospital and will have opportunity to study systematically the patients. Work in the wards may be supplemented by work in the out-patient department. Ample facilities will be furnished for laboratory investigation of patients. This course will be given under the supervision of Professor CHRISTIAN, Dr. FROTHINGHAM, and Dr. PEABODY. Each student electing the course must take it for at least two consecutive months, unless he has already had a course in Medicine 1 or 3, in which case he may take one or more additional months in this course.

Medicine 3. Full courses, all day, throughout the year.

This work will be given at the Boston City Hospital. Each course will be limited to six students. Students will serve as clinical clerks in the wards of the hospital and have opportunity to study systematically the patients. Work in the wards may be supplemented by work in the out-patient department. Facilities will be furnished for laboratory investigation of patients.

The courses will be given under the supervision of Professor SEARS, Dr. LOCKE, and Dr. PALFREY. Each student electing the course must

take it for at least two consecutive months, unless he has already had a course in Medicine 1 or 2, in which case each student may take one or more additional months in this course.

Medicine 4. Half-courses, all day, throughout the year.

This course is intended for students who elect two months of surgery and one month of medicine to fulfil the requirement of three months' service as clinical clerk in hospital wards. Students will serve as clinical clerks in the wards of a hospital. Students will be assigned to the hospitals in which there are vacancies in accordance with the limitation of numbers allowed in each of the electives, Medicine 1, 2, and 3.

Medicine 5. Half-course, forenoons, February and March.

This work will be given at the Massachusetts General Hospital and will be limited to four students. Students are advised to complete courses in Medicine 1, 2, 3, or 4 before taking this course. The work will consist of the study of cardiac cases by means of various graphic methods, with discussion of cardiac disease in relation to information yielded by the application to individual cases of such graphic methods of study. This course will be given by Dr. J. H. PRATT.

Medicine 6. Quarter-course, forenoons, in April.

Course same as Medicine 5 except for shorter period.

TROPICAL MEDICINE

Opportunity for the study of tropical diseases, tropical entomology, tropical pathology, tropical bacteriology, and clinical laboratory work, may be taken by special arrangement with Professor STRONG, who should be consulted by students desiring such courses.

ROENTGENOLOGY

Roentgenology 1. Quarter-courses, mornings, throughout the year.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 8.30 A.M. to 12.30 P.M. at the Massachusetts General Hospital by Dr. WALTER J. DODD.

PEDIATRICS.

Pediatrics 1. Prescribed Course. Half-courses, all day, throughout the year.

The work will consist of instruction in the wards and out-patient departments of the Children's Hospital, of the Infants' Hospital, of the Children's Department of the Massachusetts General Hospital, in the contagious wards of the South Department of the Boston City Hospital, at the Children's

Tubercular clinic of the Burroughs Place Dispensary, and in the children's wards and out-patient department of the Boston Dispensary. The students will be assigned to the various clinics by the Professor of Pediatrics, and the work will be under his supervision. The mornings will be spent in practical work in the various wards and out-patient departments. Four exercises on the significance of the ear in early life will be given in the wards of the Infants' Hospital. Especial instruction will be given at the Infants' Hospital in the examination and preparation of milk modifications in connection with substitute feeding, and here instruction will also be given in connection with the subject of wet nurses.

One afternoon in each week will be spent at the South Department. Here instruction in general pediatrics as connected with contagious diseases will be demonstrated, and whenever possible the technic of intubation will be shown.

Each student will have cases assigned to him on two afternoons of each week when in the early part of the afternoon instruction in physical examination will be given by the various instructors, and in the latter part of the afternoon these cases will be discussed with one of the senior members of the department.

The class will be taken to a model farm where everything practical pertaining to the milk supply for infants and young children will be taught. Practical instruction will also be given in a research milk laboratory, in the writing of prescriptions, and in the routine of laboratory work.

The examination will be an oral one, held by the Professor of Pediatrics.

Pediatrics 2. Half-course, all day, throughout the year.

The required course may be repeated as an elective, the only change being that practical work in the wards and out-patient departments will be substituted for the special work on the modification of milk at the Infants' Hospital and the visits to the model farm and milk laboratory. This course is really a repetition only in name, because, being almost entirely clinical, the patients seen must necessarily be different every month.

Pediatrics 3. Half-courses, all day, throughout the year.

Students who have taken the required course, and shown themselves competent, will be assigned to one of the hospitals under the control of the department, for special, practical work in the wards and out-patient departments for periods of one month or longer.

Pediatrics 4. Half-courses, all day, throughout the year.

Students who have taken the required course, and shown themselves competent to undertake original investigations, will be given the opportunity to undertake such investigations under the direction of the instructors in the department, for periods of one month or longer.

SURGERY.

The electives offered by the Department of Surgery consist of half-courses (occupying the whole day, for one month) and quarter-courses (either mornings or afternoons, for one month). They are so arranged that they may be themselves combined in different groups or taken in combination with quarter-courses offered by other departments. No student will be permitted to take more than four half-courses in surgery, without special permission of the head of the department.

1	2	3	4	5	6	7
All day. 1 month. P.B.B.H. Dresser. Practical Surgery. Oct. to May.	All day. 1 month. B.C.H. (a) Clinical and Labora- tory. Dr. Nichols. (b) Dresser Service. B.C.H. (c) Dresser Service. Relief Station. Oct. to May.	All day. 1 month. M.G.H. Dresser. Practical Surgery. Oct. to May.	Afternoons. 1 month. Children's Hospital. General Surgical Service. Dresser. Oct. to May.	Forenoons. 1 month. B.C.H. G. U. Sur- gery. Thorndike. Oct. to May.	Forenoons. 1 month. M.G.H. G. U. Sur- gery. H. Cabot. Oct. to May.	All day. 1 month. P.B.B.H. Neuro- logical Surgery. Oct. to May.
Half- course.	Half- course.	Half- course.	Quarter- course.	Quarter- course.	Quarter- course.	Half- course.

Surgery 1. Clinical Clerk Service at the Brigham Hospital. Half-courses, all day, for one month, throughout the year. Peter Bent Brigham Hospital. Dr. HARVEY CUSHING.

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to six students.

Surgery 2. Clinical Work at the Boston City Hospital.

(a) Clinical and laboratory work, half-courses, all day, except Saturday and Sunday, for one month throughout the year. Associate Professor E. H. NICHOLS and Dr. MACIVER WOODY. Boston City Hospital and

Laboratory of Surgical Pathology. Includes work at the Boston City Hospital mornings, and laboratory work at the Harvard Medical School, afternoons. (b) Dresser's Service at the Boston City Hospital, half-courses, under the direction of Assistant Professor J. B. BLAKE, all day, for a month, throughout the year, at the Boston City Hospital, under hospital administration. (c) Dresser's Service at the Haymarket Square Relief Station, half-courses, all day, for one month, throughout the year, under the direction of Assistant Professor J. B. BLAKE, under hospital administration; limited to four students.

Surgery 3. Clinical Clerk Service at the Massachusetts General Hospital. Half-courses, all day, for one month, throughout the year. Massachusetts General Hospital. Dr. C. A. PORTER and Dr. C. L. SCUDDER.

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to four students.

Surgery 4. Clinical Clerk Service at the Children's Hospital. Quarter-courses, afternoons, for one month, throughout the year. Children's Hospital. General Surgery. Dr. JAMES S. STONE.*

Students will serve as assistants to the hospital staff in the routine ward, operating room, and laboratory work of the hospital. The course is limited to four students.

Surgery 5. Genito-urinary Surgery. Half-courses, all day, or quarter-courses, forenoons, for one month, throughout the year. Boston City Hospital. Dr. PAUL THORNDIKE and Dr. HORACE BINNEY.

Instruction will consist of ward work, taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases and seeing the end results. Conferences with the students will be held from time to time. Technic of cystoscopy will be demonstrated.

With consent of Dr. Thorndike a limited number of students may take this course as a half-course, all day, devoting the afternoon to the study of ward cases.

Surgery 6. Genito-urinary Surgery. Quarter-courses, forenoons, for one month, throughout the year. Dr. HUGH CABOT. Massachusetts General Hospital.

The student will be assigned as assistant in the clinic and will take part in the routine work, case-taking, examination of patients, diagnosis

* This course can be taken in conjunction with *Orthopedic Surgery 2*, mornings for one month, to make a full half-course of practical dresser service at the Children's Hospital. In this way the student's whole day for a month will be spent at the Children's Hospital.

and treatment. Operations and after-care of major operative cases will be followed in the wards. Instruction will be given in cystoscopy and in laboratory methods of diagnosis.

Surgery 7. Neurological Surgery. Half-courses, all day, for one month, throughout the year. Peter Bent Brigham Hospital. Dr. HARVEY CUSHING.

The student will have an opportunity of following the neurological cases in the hospital wards, with opportunity for history taking, the use of the ophthalmoscope, and perimeter.

ORTHOPEDIC SURGERY.

Orthopedic Surgery 1. Prescribed Course Quarter-courses, afternoons, October, December, February, and April.

This course forms a part of the required combined course.

The exercises are clinical, and are given in the orthopedic clinics and wards of the Children's Hospital and of the Massachusetts General Hospital. The instruction is given daily each afternoon in the week, and is so arranged that opportunities are given for the examination of cases, with systematic note taking, combined with instruction successively in symptoms, diagnosis, the principles and details of treatment, with instruction in the common operations of orthopedic surgery as opportunity offers.

Each course is limited to eight men.

Orthopedic Surgery 2. Quarter-courses, mornings, from October to April inclusive.

This course is offered in the wards of the Children's Hospital, and in the wards and orthopedic out-patient department of the Massachusetts General Hospital, and in the course the student will serve as dresser and assistant, having an opportunity to make the regular visits, to examine and follow the course of operative and non-operative cases, to receive instruction in diagnosis and treatment, to be present at operations, and to receive instruction in the use of plaster of Paris and apparatus. The course will occupy the entire morning.

The course is limited to two men.

OBSTETRICS AND GYNAECOLOGY.

Obstetrics and Gynaecology 1. Obstetrics. Prescribed Course. Half-courses, all day, throughout the year.

This course fills one period of the regular fourth-year curriculum. It will be given at the Boston Lying-in Hospital and at the Medical School. During half of the course the student will lodge at the hospital, and devote his time chiefly to attendance on cases in the out-patient clinic.

In the course of this work he will be called on to assist at operations in the out-patient department, and will be expected, when his other duties permit, to make ward visits with the physician on duty in the house. In the other half of the course he will conduct the convalescence of the cases delivered by him during his resident service, and make daily ward visits, at which clinical instruction will be given in the general management of normal and abnormal labor, in the study of the puerperal convalescence, and in the care of the young infant. Detailed written reports of the out-patient cases attended will be required. His clinical work will be done under the supervision of the department and of the hospital staff on duty, and he will receive careful instruction in the proper methods of delivery and the care of the convalescence. An opportunity will be given each student to care of pregnancy in the Pregnancy Clinic, where instruction in pelvimetry and in diagnosis of presentation and position by external examination will be given. Case teaching on four afternoons during the week will be an important feature of the course. The student will also be given at the Medical School a course of demonstrations in operative obstetrics during the first week of each course, and each student will have an opportunity to perform the different operations on the manikin.

Obstetrics and Gynaecology 2. Gynaecology. Prescribed Course.

As part of the Combined Course of the fourth year each student will receive two weeks of clinical teaching in gynaecology during the forenoon of each day. Clinics are held in the out-patient departments of the Free Hospital for Women and the Boston Dispensary, and the student is instructed in diagnosis and the treatment of ambulatory cases.

Obstetrics and Gynaecology 3. Gynaecology. Half-courses or quarter-courses, forenoons, throughout the year.

This course will be given at the Free Hospital for Women by Professor GRAVES, assisted by Drs. PEMBERTON and WADSWORTH, and at the Boston City Hospital by Assistant Professor NEWELL, assisted by Drs. YOUNG, MASON, and GREEN. An attempt is made in this course to give the student as comprehensive a view as possible of the subject of gynaecology. Diagnosis is taught by a large number of pelvic examinations made in the out-patient department and in the hospital wards. It is designed that the student shall see the patient previous to operation, observe the operation, make daily ward visits, and then have an opportunity to examine the patient at the time of discharge from the hospital.

Operative gynaecology is taught in the operating room, where the various major and minor procedures are demonstrated. Students who show special aptitude are allowed to take some part in the clinical work of the hospital and occasionally in the operations.

Gynaecological pathology is taught by the study of gross specimens taken from the operating room and by drawing from microscopical sections. This department of the course is under the immediate instruction of Dr. PEMBERTON at the Free Hospital for Women and Professor MALLORY at the Boston City Hospital.

Each student is required to write at least two theses on gynaecological subjects.

Each course will be limited to sixteen students.

DERMATOLOGY AND SYPHILOLOGY.

Dermatology 1. Quarter-courses, forenoons, November, January, and March.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. The work consists of clinical demonstrations and discussions in which the student is required to perform his share. This lasts two and one-half hours a day and afterwards a case is assigned which the student studies and writes upon every evening with the aid of his books. Students electing Course 1 are strongly recommended to elect Course 2.

Dermatology 2. Quarter-course, afternoons, in January.

This course consists of microscopical work and is given on five afternoons a week at the Harvard Medical School. Students electing this course will be trained in the histological study of the commoner diseases of the skin.

Dermatology 3. Half-courses, all day, throughout the year.

Opportunity is offered to one man each month, throughout the year, to act as assistant house-officer to the out-patient department and skin ward of the Massachusetts General Hospital. Those electing this course will be expected to conform to the rules of the hospital.

Syphilology. Quarter-courses, forenoons, throughout the year.

Instruction in clinical syphilis will be given daily at the Massachusetts General Hospital.

Limited to four students per month.

DISEASES OF THE NERVOUS SYSTEM.

Neuropathology 1. Half-courses and quarter-courses, forenoons, afternoons, or all day, throughout the year, preferably the second half-year.

The case-method is followed. The report of a selected case will be worked up by the student (as if for publication), based upon the personal employment of approved neuropathological methods.

Limited to two during a given month. Consultation with the instructor in advance will secure the choice of a case in line with the student's later special work.

Neuropathology 2. Half-courses and quarter-courses, forenoons, afternoons, or all day, throughout the year.

Clinico-pathological methods in neurology and psychiatry and allied problems of internal medicine and surgery. Students taking this course for several months may, with the consent of the authorities, serve as clinical clerks or laboratory externes in the Psychopathic Hospital or, under special conditions, in other State institutions. Students will be permitted to attend staff conferences at the institutions where their work is carried on. They may be required to submit reports or theses concerning observations made.

The clerkships and externships are limited to two in a given month. The instructor should be consulted in advance.

Neurology 1. Half-courses, forenoons, October and May.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

(1) Daily informal conferences on neurological topics.

(2) History-taking and personal examinations of patients at the outpatient department of the Massachusetts General Hospital and at the Robert Bent Brigham Hospital.

(3) Assistance in the clinic.

(4) The preparation of reports bearing on the subjects studied and such original investigation as the time permits, together with a review of the literature bearing on special topics apart from text-books, is urgently advised.

In the final marking much account will be taken of the daily practical work of the student.

Psychiatry 1. Half-courses or quarter-courses, forenoons, or all day, throughout the year.

A clinical course in which, by permission of the authorities, the wards and laboratories of the Psychopathic Hospital may be used and the daily staff conferences attended. In addition to a complete representation of mental diseases, there is much material of a neurological and general medical interest, so that students are advised to take the work later rather than earlier in the year. Under certain circumstances students taking the course for several months may be appointed to internships by the hospital authorities.

SEMINARY IN DISEASES OF THE NERVOUS SYSTEM.

A voluntary weekly conference for all fourth-year students taking electives in neuropathology, neurology, or psychiatry, and for graduate students taking allied courses, has been arranged by the heads of the departments mentioned. The exercises will be partly in the nature of reviews from recent literature, partly clinical or pathological demonstrations, and partly the presentation of theses and reports by students.

OPHTHALMOLOGY.

Ophthalmology 1. Prescribed Course.

As a part of the prescribed course, each student will spend forenoons for two weeks in attendance at clinical exercises devoted to diagnostic methods, diagnosis and treatment, at the Massachusetts Charitable Eye and Ear Infirmary.

Ophthalmology 2. Half-courses, forenoons, February, March, April, and May.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations, with opportunity to witness their exemplification in the operative work of the hospital. Limited to four men.

Ophthalmology 3. Quarter-courses, forenoons, February, March, April, and May.

This course will be devoted to instruction in the use of the ophthalmoscope. Limited to four men.

OTOLOGY.

Otology 1. Prescribed Course.

For two weeks of the Combined Course each student will receive clinical instruction in Otology, forenoons, at the Massachusetts Charitable Eye and Ear Infirmary.

Otology 2. Quarter-courses, forenoons, throughout the year.

In this course the student will serve as a volunteer assistant, attending the clinic in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary, and assisting at operations in the house.

Otology 3. Half-courses, all day, throughout the year.

This course will consist of the work of Otology 1 plus afternoon work as a clinical clerk in the house. In addition to opportunities for the

study of cases they will receive instruction in the anatomy, histology, and pathology of the ear.

Otology 4. Quarter-courses, afternoons, throughout the year.

This course on the histology and pathology will be given in the Laboratory at the Medical School.

LARYNGOLOGY.

Laryngology and Rhinology 1. Prescribed Course.

Forenoons of two weeks of the combined course are devoted to clinical instruction in laryngology and rhinology, with training in the use of instruments at the Massachusetts General Hospital or the Boston City Hospital.

Laryngology 2. Quarter-courses, forenoons, throughout the year.
Massachusetts General Hospital.

These courses are chiefly clinical in character; but in addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Each course limited to two.

Laryngology 3. Drs. R. A. COFFIN and J. H. BLODGETT. Quarter-courses, forenoons, February, March, and April. Boston City Hospital.

These courses are clinical and include both ward and out-patient service in the Department for Diseases of the Nose, Throat, and Ear.

Each course limited to two.

COMBINED COURSE IN SPECIALTIES AND SURGICAL ANATOMY.

Two periods in the fourth-year course of each student will be devoted to a Combined Course, including work in gynaecology, laryngology, otology, ophthalmology, in the forenoons, and orthopedic surgery and surgical anatomy in the afternoons. Each student will be assigned for two weeks each to the following subjects, and at the following clinics, from nine to twelve.

Gynaecology. Free Hospital for Women, October, November, December, April, and May; Boston Dispensary, January, February, and March.

Laryngology. Massachusetts General Hospital, first half-year; Boston City Hospital, second half-year.

Ophthalmology and Otology. Massachusetts Charitable Eye and Ear Infirmary, throughout the year.

Details of the work in these sections are described among courses of the respective departments. Special exercises will be arranged from twelve to one, according to the schedule which will be announced to each section.

In the afternoons, students will be assigned for four weeks each to the Orthopedic Clinics at the Children's Hospital, or the Massachusetts General Hospital, and to a course in surgical anatomy, as described in Orthopedic Surgery 1 and Anatomy 1.

COURSES IN THE GRADUATE SCHOOL OF MEDICINE.

Courses of Graduate School of Medicine which may be taken to anticipate requirements in special subjects. For details see Catalogue of the Graduate School.

Medicine, 226, 227.

Surgery, Special.

Pediatrics, 297, 298, 299, 300.

Obstetrics, 451a with 454.

To be arranged with the Secretary of the Graduate School.

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			<i>October and November.</i> Anatomy. Lecture or Demonstrations. <i>December and January.</i> Histology and Embryology. Lecture.			<i>October to January.</i> Lecture.
10-1			<i>October and November.</i> Anatomy. Dissection. <i>December and January.</i> Histology and Embryology. Laboratory.			<i>October to January.</i> Examinations or Laboratory.
2-3			<i>October and November.</i> Histology and Embryology. Lecture. <i>December and January.</i> Anatomy. Lecture or Demonstrations.			
3-5.30			<i>October and November.</i> Histology and Embryology. Laboratory. <i>December and January.</i> Anatomy. Dissection.			

FIRST YEAR. — Second Half-Year

PHYSIOLOGY. *February*

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10			Lecture or Demonstration.			
10-1			Laboratory Experiments.			
			<i>March, April, May.</i>			
9-10			Lecture or Demonstration.			
10-12.15			Laboratory Experiments.			
12.15 -1			Thesis or Lecture or Laboratory Experiments.			
			BIOLOGICAL CHEMISTRY.			
2-3			Lecture. Daily except Saturday.			
3-5.30		Laboratory.	Laboratory and Conference.		Laboratory.	

SECOND YEAR.—First Half-Year.

	OCTOBER.	NOVEMBER.	DECEMBER.	JANUARY.
9-12		Pathology. Laboratory.		Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
				Tuesday, Thursday, and Saturday. Pathology. Laboratory.
				Pathology. Lectures. First two weeks.
12-1		Pathology. Lectures. Daily.		Tuesday, Thursday, and Saturday. Laboratory. Dr. Tyzzer.
				Lectures. Dr. Tyzzer. Second and third weeks.
2-3	Bacteriology. Lectures. Daily except Saturday.		Neuropathology. Daily except Saturday. Lectures and Laboratory. Southard.	Surgical Pathology. Nichols. Surgery. Cushing and assistants.
3-5.30	Bacteriology. Laboratory. Daily except Saturday.			

SECOND YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	Medicine † M. G. H. Edsall	Neurology M. G. H. Taylor	Surgery B. C. H.	Dermatology M. G. H. White	Surgery M. G. H.	Medicine † B. C. H. Sears
10-12	Section Work Anatomy, Medicine, Surgery See Section Schedules					
1-2	Pharmacology Hunt Bldg. E	Clinical Pathology Peabody Bldg. D	Pharmacology Hunt Bldg. E	Clinical Pathology Peabody Bldg. D	Clinical Pathology Peabody Bldg. D	
2-3	Hygiene Rosenau Bldg. E		Hygiene Rosenau Bldg. E			
3-4	Pharmacology * Hunt Bldg. E	Medicine Frothingham † Bldg. A, Room 201	Pharmacology * Hunt Bldg. E	Obstetrics Newell Bldg. D	Medicine Frothingham † Bldg. A, Room 201	
4-5	Hygiene * Rosenau Bldg. E	Surgery Bldg. A, Room 201	Hygiene * Rosenau Bldg. E	Surgery. Bldg. D	Pharmacology Hunt Bldg. E	

* Half the class.

† Robey first six weeks.

† Robey first six weeks, P.B.H.

THIRD YEAR. — First Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine M. G. H., Edsall and B. C. H., Sears	Pediatrics Children's and Infants' Hospital Morse	Syphilis <i>Sept. 26 to Nov. 20</i> M. G. H. Smith. Neurology <i>Nov. 20 to Dec. 30</i> M. G. H. <i>Jan.</i> Psychopathic
or 1.30 -2.30	Luncheon Period					
2.30- 3.30	Obstetrics Newell Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	Otology <i>Oct. and Nov.</i> Syphilis <i>Dec. and Jan.</i> Bldg. A, Room 201	Obstetrics Newell Bldg. A, Room 201	Medicine Christian Bldg. A, Room 201	
3.30- 4.30	Surgery Bldg. A, Room 201	Psychiatry and Laryngology alternate weeks Bldg. A, Room 201	Pediatrics Bldg. A, Room 201	Surgery Bldg. A, Room 201	Clinico-pathological Demonstration Bldg. D	
4.30- 5.30						

THIRD YEAR. — Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-12	Section Work. See Section Schedules					
12-1 or 12.30- 1.30	Medicine P. B. B. H. Christian	Surgery M. G. H. and B. C. H.	Surgery P. B. B. H.	Medicine B. C. H., Sears and M. G. H., Edsall	Pediatrics Children's and Infants' Hospital Morse	Neurology and Psychiatry <i>Feb., Mar., Apr., May</i> M. G. H.
1 or 1.30 to 2.30	Luncheon Period					
2.30- 3.30	Obstetrics Bldg. A, Room 201	Medicine Cabot Bldg. D, Room 221	Obstetrics <i>February, March</i> Medicine-Sears <i>April, May</i> Bldg. A, Room 201	Medicine Cabot Bldg. A, Room 201	Surgery Bldg. D Room 221	
3.30- 4.30	Surgery Bldg. A, Room 201	Pediatrics Bldg. A, Room 221	Orthopedic Surgery and Gynaecology alternate weeks Bldg. A, Room 201	Dermatology and Ophthalmology alternate weeks Bldg. A, Room 201	Clinico-Pathological Demonstration Bldg. B Room 221	
4.30- 5.30						

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various clinical subjects, those advantages which are found only in large cities. The following clinics and hospitals of Boston are utilized extensively for clinical exercises for medical students, who are admitted freely to the out-patient departments, wards and operating rooms of these hospitals:—

The Peter Bent Brigham Hospital.—This general hospital has been in active operation since February, 1913. The hospital is for general medical and surgical cases, and is situated on ground adjacent to the Medical School buildings. There are in all two hundred beds, and there is a medical and surgical out-patient department which is open for patients throughout the twenty-four hours. Dr. HENRY A. CHRISTIAN, Hersey Professor of the Theory and Practice of Physic, and Dr. HARVEY CUSHING, Moseley Professor of Surgery, in the Harvard Medical School, have been appointed by the trustees of the Hospital Physician-in-chief and Surgeon-in-chief respectively.

The Collis P. Huntington Memorial Hospital.—This Hospital, which has been erected by the Cancer Commission of Harvard University on the Medical School grounds, affords opportunity for the study of human tumor cases, with the advantage of a close approximation of clinical and laboratory facilities. The aim of the hospital is the study of special problems with the view of adding to the knowledge of the natural history and the rational treatment of tumors, and also to be of public service in affording means for early diagnosis and in carrying out treatment or giving advice regarding therapeutic measures. Accommodations are provided for twenty-four in-patients; out-patients are also received at stated hours.

During the year 1915-16, two hundred and sixteen new patients were cared for in the wards of the hospital and two hundred and thirty patients were seen as out-patients.

The Massachusetts General Hospital.—During the past year, six thousand five hundred and three patients were treated in the wards, four thousand eight hundred and fifteen patients were treated in the Accident Ward, and there were one hundred ninety thousand and six hundred and twenty-eight visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the surgical building. Last year there were four thousand and forty-six operations in the house and four thousand four hundred and eighty-two in the out-patient department and accident ward. Clinics in

the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedic Surgery, Diseases of the Genito-Urinary System, and Syphilis. Two Dalton scholarships, of \$500 each, are open annually to the house pupils.

The Boston City Hospital.—During the past year, twenty thousand and eight hundred and ninety-three cases were treated in its wards, and there were two hundred and twelve thousand and nine visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, forty-two thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, the nervous system, the nose and throat, genito-urinary system, and the bones and joints. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In this hospital, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over six thousand eight hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than nine hundred patients were delivered during the last year in the Hospital. In the out-patient department, over two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given, in these cases, by the physicians to Out-Patient Department, by the house physicians, and by the Alumni Assistant.

The Boston Dispensary.—Over one hundred and twenty thousand visits were made by out-patients at this charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery. The opportunities in children's work are unusually good, as over one-third of the out-patients are children and there is, in addition, a well-equipped Hospital for Children, with thirty beds chiefly for medical cases.

Infants' Hospital (Roth Memorial Building).—The wards of the Hospital are devoted entirely to the medical care of infants. The material of the Hospital is used throughout the year for teaching both students and graduates. Sixty-two beds,

Children's Hospital. — In April, 1914, the new buildings of the Hospital on Longwood Avenue, adjacent to the Harvard Medical School, were opened. During the past year more than three thousand one hundred and sixty-one cases were treated in the wards and over forty-two thousand, two hundred and twenty-one visits were made to the out-patient departments. Instruction in pediatrics, surgery, and orthopedic surgery is given by members of the hospital staff.

The McLean Hospital. — During the past year a daily average number of two hundred and thirteen patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, occupation, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, pathological, chemical, and psychological work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital. — During the past year thirty-nine hundred and seventeen patients were under treatment. Clinical instruction is given at the Psychopathic Department, Fenwood Road, in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Besides regular commitments, emergency, voluntary and temporary care cases are received; the whole number of patients admitted last year was thirty-one hundred and twenty-three, including many instructive examples of the various forms of mental disease.

The Psychopathic Hospital. — This is the receiving hospital of the Boston State Hospital, situated on Fenwood Road, two blocks removed from the Medical School grounds. The hospital was opened to patients in June, 1912. It has one hundred beds and receives patients at the rate of about two thousand a year. This large admission rate insures the presence at all times in the hospital wards of a varied clinical and pathological material. The out-patient department receives patients at the rate of over fifteen hundred a year. The State Board of Insanity has provided laboratories in the building.

The Massachusetts Charitable Eye and Ear Infirmary. — About seventy thousand visits are made yearly by patients in the out-patient depart-

ment and thirty-six hundred are treated in the wards, affording an opportunity to observe every variety of eye and ear diseases, together with daily operating. The services are so arranged that it is possible to easily follow the patient through his entire course of treatment both in the wards and out-patient department.

The Free Hospital for Women. — This hospital is devoted exclusively to the surgical treatment of the diseases peculiar to women. The hospital has a capacity of sixty-three beds. Operations are performed on Tuesdays, Wednesdays, and Thursdays throughout the morning. Physicians and medical students are invited to attend the operations and the medical ward visits with the Visiting Surgeon. Out-patient clinics are held every day in the week, beginning at nine o'clock in the morning and at three o'clock in the afternoon, excepting Saturday-afternoon. The clinics average from fifteen to thirty in attendance. Post-graduate courses in gynaecological examinations are given in these clinics. A well-equipped laboratory is connected with the institution, where instruction in gynaecological pathology is given. A library containing the principal works on gynaecology is available for the use of students and visiting physicians.

LIBRARIES

The central library of the School is housed in Charles B. Porter Hall in the Administration Building, and in the other buildings are branch libraries. By an arrangement with the Peter Bent Brigham Hospital the library facilities of the two institutions are combined in the central library. This library is open from 9 A.M. until 10 P.M. The present number of volumes in the library is about twenty-eight thousand four hundred and sixty-nine, and in addition there are forty-nine thousand pamphlets and two hundred and sixty-nine current periodicals kept on file.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about eighty-four thousand bound volumes and fifty-six thousand pamphlets, and nearly six hundred and fifty current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, many of them preserved in their natural colors.

The American Ambulance of Paris has contributed a large number of specimens, from the European War, showing the effects of bullet wounds of the head and extremities, and the lesions of "gas gangrene." Also photographs of apparatus and the results of operation. The whole forms a most valuable collection, especially for a student of military surgery.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

THE CANCER COMMISSION OF HARVARD UNIVERSITY

The Cancer Commission of Harvard University was founded in 1899, by the late Mrs. Caroline Brewer Croft, who left in her will a sum of money for the investigation of the cause and treatment of cancer. Dr. J. Collins Warren and Dr. Henry K. Oliver were the Trustees of this fund. Since that time other sums have been contributed for cancer research and the Cancer Commission of Harvard University was organized in 1909, consisting of the following members: J. Collins Warren, M.D.,

Chairman; Henry K. Oliver, M.D., and J. Collins Warren, M.D., for the Caroline Brewer Croft Fund; Henry P. Walcott, M.D., and Arthur T. Cabot, M.D., for the Corporation of Harvard College; William T. Councilman, M.D., and Theobald Smith, M.D., for the Harvard Medical School. To fill the vacancy caused by the death of Dr. Arthur T. Cabot, Dr. Edward H. Bradford was appointed in 1912; on the resignation of Dr. Theobald Smith, Dr. E. E. Tyzzer was appointed in 1916. Mr. Arthur Adams was also appointed Treasurer, and Dr. Robert B. Greenough, Secretary.

Under this Commission research on cancer problems has been carried on, and five reports of research work have been published. Investigations were carried on in the laboratories of the Harvard Medical School, and at the Massachusetts General Hospital until April, 1912, when the Collis P. Huntington Memorial Hospital (page 88) was completed. The work of the Cancer Commission is at present carried on in the laboratories of the Harvard Medical School and in the Huntington Hospital. Robert B. Greenough, M.D., Assistant Professor of Surgery, is Surgeon in charge of the Hospital, Edward H. Risley, M.D., and Channing C. Simmons, M.D., are Assistant Surgeons; Henry A. Christian, M.D., and Francis W. Peabody, M.D., are Consulting Physicians; George Adams Leland, Jr., M.D., is Surgeon to Out-Patient Department. Miss I. W. Mason is Matron and Superintendent of the Hospital.

William Duane, Ph.D., Assistant Professor of Physics, is Research Fellow of the Cancer Commission in charge of the research work on radium and radioactive substances, and their preparation for therapeutic use. William T. Bovie, M.D., is Research Fellow in Physics; Clarence C. Little, S.D., in Genetics, Henry Lyman, M.D., in Chemistry and Albert A. Ghoreyeb in Pathology.

HARVARD INFANTILE PARALYSIS COMMISSION

A Commission for the purpose of assisting in the early recognition, treatment, and study of infantile paralysis was appointed by the Corporation September 25, 1916. The Commission consists of Dr. Robert W. Lovett (Chairman), Professor of Orthopedic Surgery, Dr. Milton J. Rosenau, Professor of Preventive Medicine and Hygiene, Dr. Francis W. Peabody, Assistant Professor of Medicine, and Roger Pierce (Secretary).

Shortly thereafter, the members of the Harvard Infantile Paralysis Commission were appointed agents of the State Department of Health, thereby assuring cooperation between the Commission and the Commonwealth. This action widely increased the purposes and also the responsibilities of the Commission, in that it at once took cognizance of the

disease and its after-effects throughout the state. The work of the Commission is being prosecuted along three lines, Dr. Peabody directs the early diagnosis and treatment of acute cases; Dr. Lovett directs the problem of after-care of the paralytics; and under the supervision of Dr. Rosenau, studies are being made of the cause, mode of transmission, period of incubation and other unsolved problems relating to the disease.

The work of the Commission is being carried on in conjunction with various clinics in different parts of the state. A clinic for the care of paralytics is established at the Children's Hospital, and coöperation has been effected with other hospitals and also with other agencies. Dr. E. E. Tyzzer, Professor of Comparative Pathology, is making a study of paralysis in lower animals, and Dr. E. E. Southard, Professor of Neuro-pathology and Director of the Psychopathic Hospital, is helping the Commission.

The Commission is supported mainly by public subscription, and in part by an allotment of \$5000 made by the Governor of the Commonwealth from the Contingent Fund for the purpose of after-care.

GRADUATE SCHOOL OF MEDICINE

On October 1, 1912, graduate instruction in medicine was organized as a Department of the Faculty of Medicine of Harvard University, with a separate Dean and Administrative Board.

The object is, by better organization and the development of teaching facilities, — both clinical and laboratory, — to offer graduates in medicine opportunities to continue their studies in as thorough and scientific a manner as in the Medical School proper.

Adequate opportunities for study will be offered for those graduates who wish to review past studies and for those who wish to keep abreast of recent advances in medicine. Other courses will be offered for those who are interested in special subjects, and the excellent opportunities for advanced study and for research in all departments of medical science will be made available for those who are qualified by previous training to undertake such work. Thus graduates in medicine, both of remote and of recent date, whether desiring fundamental reviews or in quest of the attainment of higher standards, are provided for. Graduates of recognized medical schools will be accepted as students.

While all courses are intended primarily for those who hold degrees from recognized medical schools, certain courses in the scientific subjects are adapted to the needs of advanced students and teachers of science. Such persons may be admitted to courses on the approval of the Administrative Board.

By special arrangement applicants in the following groups are accepted as "special class" students and receive a reduction in fees, particulars of which may be had on request:

Teachers in Medicine or Science in approved schools.

Those holding scholarships or fellowships from Harvard, from other acceptable institutions, or from governments.

Medical officers in the Army, Navy, or Public Health Service of the United States.

Missionaries.

Such other persons as the Administrative Board shall accept, on the basis that instruction is sought for the purpose of teaching or public service.

Undergraduate students of medicine may be admitted by vote of the Administrative Board to such courses as they are qualified to take. Special consideration for the needs of such students will be given in the plans for summer courses.

The laboratory facilities in the buildings of the Harvard Medical School and at some of the hospitals are available for graduate instruction, as are also abundant clinical opportunities of all kinds in the following institutions:—

Massachusetts General Hospital,

Boston City Hospital,

Peter Bent Brigham Hospital,

Carney Hospital,

Boston Dispensary,

Massachusetts Eye and Ear Infirmary,

Boston Lying-in Hospital,

Free Hospital for Women,

Children's Hospital,

Infants' Hospital (Rotch Memorial Building),

Massachusetts Babies' Hospital,

McLean Hospital,

Boston State Hospital,

Danvers State Hospital.

Clinical and laboratory instruction will be conducted in small classes so that students may receive personal attention.

The fees for separate courses vary from \$5 to \$125, according to the nature of the instruction and the duration of the course. An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the office of the Dean of the Graduate School of Medicine, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the Dean of the Graduate School of Medicine, Harvard Medical School, Longwood Avenue, Boston, Mass.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and fifty dollars each, and of the last, two hundred and seventy-five dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

THE JAMES JACKSON CABOT FELLOWSHIP; with an income of three hundred and fifty dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. In 1912 Guy C. Cabot added four thousand dollars to this fund. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a fellowship "to aid and encourage practical work in scientific medicine."

CHARLES FOLLEN FOLSOM TEACHING FELLOWSHIP. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom,

A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of six hundred dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

HENRY P. WALCOTT FELLOWSHIP IN CLINICAL MEDICINE; with a stipend of one thousand two hundred dollars. Founded in 1910 by FREDERICK CHEEVER SHATTUCK, A.M., M.D., LL.D. "The income to provide for the support of a Fellow in Clinical Medicine, who shall receive his appointment from the Corporation on nomination by the Jackson Professor of Clinical Medicine, who, while the holder of the Fellowship, shall not engage in private practice but devote his time to teaching and clinical research work."

WILLIAM O. MOSELEY, JR., TRAVELLING FELLOWSHIPS; two, with a stipend of one thousand nine hundred and seventy-five dollars each, for the purpose of studying medicine in Europe. In January, 1912, Mrs. William O. Moseley left a bequest of seventy-four thousand dollars to establish two travelling Fellowships, to be granted annually to two men who have attended the Harvard Medical School for three or four years, and who have given evidence of their diligence and ability, the election of such men to be made by the President and proper officers connected with the Medical School. Applications for these Fellowships must be handed to the Dean on or before May 1st.

ARTHUR TRACY CABOT FELLOWSHIP. In 1913, Dr. and Mrs. Frederick C. Shattuck gave twenty-five thousand dollars for the establishment of a Fellowship in Surgery in memory of Arthur Tracy Cabot, M.D., of the Class of 1872, Fellow of the Corporation. The holder of the Fellowship is not ordinarily to engage in active private practice while holding it but to devote himself to the advancement of Surgery whether in the United States or elsewhere. The nomination to this Fellowship is by preference to be in the hands of the Moseley Professor of Surgery.

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

HERBERT L. BURRELL FUND. The income of this fund, amounting to two hundred and sixty dollars annually, is to be devoted to the further-

ance, directly or indirectly, of the art and science of surgery. The special disposition of the income of this fund is subject to recommendations of the Dean of the Harvard Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

WILLIAM H. THORNDIKE FUND. The income of this fund, amounting to two hundred and sixty dollars annually, is to be devoted to the furtherance, directly or indirectly, of the art and science of surgery. The special disposition of the income of this fund is subject to recommendations of the Dean of the Harvard Medical School.

SCHOLARSHIPS

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

EDWARD M. BARRINGER SCHOLARSHIPS. From the estate of Edward M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarship No. 2.'" These scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and seventy-five dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be

awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHER-
SPON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One-half
of the income derived therefrom, amounting to one hundred and twenty-five
dollars, "is to be given annually as a scholarship to a deserving student
in the Medical department."

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual
income of two hundred dollars each. Founded from the residuary be-
quest of thirty-seven thousand eight hundred and ninety-seven dollars
and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding
deserving and indigent young men in obtaining an education in said Col-
lege or any of the schools connected therewith." Three Scholarships on
this foundation have been assigned to the Harvard Medical School.

GEORGE HAVEN SCHOLARSHIPS, with an income of eleven hundred
dollars, were founded in 1913 from a bequest under the will of George
Haven, the income to be used annually for scholarships to deserving
students of the first year in the Medical School, the amount of such
scholarships to be at the discretion of the Scholarship Committee.

The **LEWIS AND HARRIET HAYDEN SCHOLARSHIP** for colored students
was founded in 1894 from a bequest of Mrs. Harriet Hayden. The
income, two hundred and fifty dollars, may be divided between two or
more students.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two
hundred and twenty-five dollars each, were founded in 1897 from a bequest
of William Hilton.

WILLIAM OTIS JOHNSON SCHOLARSHIP, with an income of one hundred
and seventy-five dollars, was founded in 1912 from a bequest under the
will of Mrs. William O. Johnson, in memory of her husband, William
Otis Johnson, M.D., of the Class of 1845.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of three hundred
dollars, is from a bequest of six thousand dollars by Claudius Marcellus
Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two
hundred and fifty dollars, was founded in 1895 by Mrs. George Linder.
It is to be awarded to a needy student who shall have proven himself
to be of sound principles and marked ability.

The **JOSEPH PEARSON OLIVER SCHOLARSHIP,** with an income of four
hundred dollars, was founded in 1904 by patients of the late Joseph

Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and seventy-five dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of three hundred and twenty-five dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

The JOHN THOMSON TAYLOR SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

FRANCIS SKINNER FUND. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and fifty dollars.

JOHN FOSTER FUND. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious

students needing assistance. The next assignment in the Medical School will be made in 1916.

JAMES EWING MEARS GIFT IN MEDICINE. Dr. J. EWING MEARS has entered into an agreement with the President and Fellows whereby he has provided for the payment of \$225 a year during his lifetime for the maintenance of a scholarship in the Medical School; and the permanence of this scholarship has been secured by a bequest of \$5000. The scholarship is to be awarded to a young man whose financial resources are such that he cannot, unaided, acquire a medical education, and whose scholarship is good. This scholarship is to be held for the full course of four years in the Medical School, subject to the standing the recipient shall maintain in scholarship and to his good conduct as a student of the School.

THE LOAN FUND OF THE MEDICAL CLASS OF 1879. The Medical Class of 1879 has given the sum of \$436.79 to be used as a loan fund to aid any student or students in the Medical School in accordance with the request of the Class, or, in the absence of such request, under the direction of the Faculty of Medicine.

Fellowships and Scholarships available in other Departments of the University as well as in the Medical School

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. *The income of this Fund is available for holders of any degree from Harvard University. For further particulars, see University Catalogue for 1916-17.*

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of three hundred dollars, "to be offered each year to a graduate of an Iowa College or University, in any of the graduate or professional departments of Harvard University." The terms of gift are quoted further in the University Catalogue for 1916-17.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and twenty-five dollars. This Scholarship, founded in 1909 by Mrs. JAMES A. RUMRILL, in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee or Kentucky. The terms of gift are quoted further in the University Catalogue for 1916-17.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to

a graduate of that University studying in any department of Harvard University.

THE WILLIAM STANISLAUS MURPHY SCHOLARSHIPS; with an income of \$250 each, founded by WILLIAM STANISLAUS MURPHY, of the class of 1885, to be used for the collegiate education of men of the name of Murphy, who, in the judgment of the faculty prove deserving of this kind of encouragement. These scholarships are available for students in all departments of the University.

Applications should be made to Dean L. B. R. BRIGGS, the chairman of the Committee on General Scholarships and on the Sheldon Fund.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

Information with regard to all forms of pecuniary aid may be obtained from the Director of Scholarships. The Director will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Third-year students may apply for scholarships in January; second-year students, in February; first-year students, in March. All applications must be made before *May 1*.

Applications for the Cheever, Hayden, and Haven Scholarships must be handed to the Director of Scholarships on or before *December 10th*. These scholarships are open only to students who are members of the School at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

BOYLSTON MEDICAL PRIZES

These prizes, which are *open to public competition*, are offered for the best dissertation on questions in medical science proposed by the Boylston Medical Committee.

Information in regard to coming prizes may be obtained from the Secretary, H. C. ERNST, M.D., Harvard Medical School, Boston, Mass.

In awarding these prizes, preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear, in place of the author's name, some sentence or device, and must be accompanied by a sealed packet, bearing the same sentence or device, and containing within the author's name and residence.

Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within *one year* after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

1. That the Board does not consider itself as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
2. That, in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows of Harvard College, and consists of the following physicians: WILLIAM F. WHITNEY, M.D., *Chairman*; HAROLD C. ERNST, M.D., *Secretary*; WILLIAM T. PORTER, M.D., HENRY A. CHRISTIAN, M.D., EDWARD H. NICHOLS, M.D., JOHN WARREN, M.D., REID HUNT, M.D.

The address of the *Secretary* of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

Otological Prize.—For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue for 1916-17.

DEGREES

ON FEBRUARY 28, 1916, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

- José Penteado Bill, A.B. (*Dickinson Coll.*) 1907.
 Robert Albert Christman, PH.B. (*Lafayette Coll.*) 1911.
 William Edward Hunter, A.B. (*Univ. of Utah*) 1913.
 Frank William Marvin, A.B. 1910.
 Robert Ray Sattler, A.B. (*Univ. of Michigan*) 1911.
 Joseph Henry Shortell.
 Clifton Clark Taylor, A.B. (*Dartmouth Coll.*) 1912.

M.D. *cum Laude*

Donald Munro, A.B. 1911.

William Albert Perkins, A.B. 1912.

ON COMMENCEMENT DAY, JUNE 22, 1916, DEGREES WERE CONFERRED AS FOLLOWS:—

M.D.

- Jacob Aaronson, A.B. 1912.
 Sumner Cheever Andrews, A.B. 1910.
 William Hulbert Barrow, A.B. 1908.
 Diego Abraham Biascoechea, S.B. (*Univ. of Michigan*) 1914.
 Maurice Taggart Briggs, A.B. 1912.
 Edmund John Butler, A.B. (*Boston Coll.*) 1912.
 Claudius Virgil Calvin, S.B. (*Allegheny Coll.*) 1914.
 Kenneth Churchill, A.B. (*Bowdoin Coll.*) 1912.
 Edward Saunders Dillon, A.B. (*Princeton Univ.*) 1911.
 Eldon Marshall Findley, A.B. (*Univ. of Missouri*) 1914.
 William Meyer Findley, A.B. (*Univ. of Missouri*) 1913.
 Neil Augustus Fogg, A.B. (*Bowdoin Coll.*) 1913.
 John Joseph Gilbert, A.B. (*Brown Univ.*) 1912.
 Launcelot Curry Goffin, A.B. (*Univ. of Missouri*) 1914.
 Ross Golden, A.B. (*Cornell Coll.*) 1912.
 Clarence Milo Grace, A.B. (*Washington State Univ.*) 1912.
 Paul Gustafson, A.B. 1912.
 John Homer Hamilton, S.B. (*Oklahoma Agricultural and Mechanical Coll.*) 1910.
 Edward Harding, A.B. 1911.
 Frank Wellington Hodgdon, Jr., A.B. 1911.
 Earl Edward Hussey, A.B. (*St. Mary's Coll.*) 1911, A.M. (*ibid.*) 1913.
 Clarence Henry Hyman, S.B. (*Heidelberg Univ.*) 1911.

Harold Bartlett Johnson, A.B. 1911.
Alfred Gustav Langmann, A.B. 1912.
Thomas Hinckley Lanman, A.B. 1912.
Franklin Patterson Lowry, S.B. 1912.
John Archibald McIntyre, S.B. (*Cornell Coll.*) 1912.
William Edward Roche McMahon, A.B. (*Holy Cross Coll.*) 1910.
Barclay Wellington Moffat, A.B. 1912.
Samuel Leslie Morris, Jr., S.B. (*Davidson Coll.*) 1911.
Andrew Nichols, 3d, A.B. 1912.
Harry Archibald Nissen, A.B. (*Univ. of South Dakota*) 1911.
Frank Thorwald Oberg, A.B. (*Clark Univ.*) 1912.
Charles William Peabody, A.B. 1912.
Benjamin Harrison Ragle, A.B. (*De Pauw Univ.*) 1912.
Laurance David Redway, A.B. 1912.
James Vincent Ricci, A.B. (*Brown Univ.*) 1913.
Bertrand Earle Roberts, A.B. 1912.
Joseph Carr Savage, A.B. (*Univ. of Colorado*) 1913.
Howard Edwin Settle, A.B. 1913 (1912).
Ivan Read Stidger, A.B. (*Allegheny Coll.*) 1911.
George Loughlin Tully, A.B. 1912.
Henry Rouse Viets, Jr., S.B. (*Dartmouth Coll.*) 1912.
John Herbert Waite, S.B. (*Bucknell Univ.*) 1911.
George Watt, S.B. (*Univ. of Michigan*) 1914.
Stanley Burnham Weld, A.B. (*Dartmouth Coll.*) 1912.
George Browning Wilbur, S.B. 1912.
Paul Richmond Withington, A.B. 1912.

M.D. *cum Laude*

Hiram Hygazon Amiral, A.B. (*Univ. of Rochester*) 1911.
Joseph Charles Aub, A.B. 1911.
George Hoyt Bigelow, A.B. 1913 (1912).
Alan Gregg, A.B. 1911.
Carl Thorburn Harris, S.B. (*Univ. of Rochester*) 1912.
David Walker Houston, Jr., A.B. (*Princeton Univ.*) 1912.
Benoni Price Hurst, A.B. (*Amherst Coll.*) 1912.
Walter Hamer Lacey, A.B. 1912.
John Houghton Taylor, A.B. 1913 (1912).
Ward Stanley Wells, S.B. (*Grinnell Coll.*) 1909.
Harold Eugene Winchester, S.B. (*Dartmouth Coll.*) 1910.

M.D. *Magna cum Laude*

Thomas Rodman Goethals, A.B. 1912.

Hilmar Koefod, S.B. (*Beloit Coll.*) 1911.

Arthur Bates Lyon, A.B. (*Amherst Coll.*) 1912.

Frederic Parker, Jr., A.B. 1913.

David Louis Rappört, A.B. 1912.

Adrian Stevenson Taylor, M.D. (*Univ. of Virginia*) 1905.

Dr. P.H.

Ralph Robertson Mellon, S.B. (*Grove City Coll.*) 1901, M.D. (*Univ. of Michigan*) 1909, S.M. (*ibid.*) 1913.

Special Field, Bacteriology.

Thesis, "A Study of the Diphtheroid Group of Organisms, with Special Reference to its Relation to the Streptococci."

Wilson George Smillie, A.B. (*Colorado Coll.*) 1908, M.D. (*Harvard Univ.*) 1912.

Special Field, Epidemiology.

Thesis, "Studies of the Streptococcus of Smith."

THE MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

Bristol, Leverett Dale, S.B. (*Wesleyan Univ.*) 1903; M.D.
 (*Johns Hopkins Univ.*) 1907, _____

Boston

FOURTH CLASS

Adams, Frank Dennette, LITT.B. (<i>Princeton Univ.</i>) 1913,	Washington, D. C.
Adams, William Bradford, A.B. 1913,	Springfield
Ashton, Leslie Orrell, S.B. (<i>Dartmouth Coll.</i>) 1913,	Lawrence
Astrin, Albert, A.B. 1911,	Boston
Baker, Horace Mitchell, S.B. (<i>Mass. Agricultural Coll.</i>) 1912,	Selbyville, Del.
Bean, Harold Cotton, S.B. (<i>Dartmouth Coll.</i>) 1914,	Boston
Belknap, Robert Willis, A.B. (<i>Bowdoin Coll.</i>) 1913,	Damariscotta, Me.
Berry, Francis Brown, A.B. 1914,	Providence, R. I.
Brady, John William Stansbury, A.B. 1910,	Boston
Brown, Frederick Ronald, A.B. (<i>McGill Univ.</i>) 1913,	Danville, Can.
Buchanan, Edwin Porter, S.B. (<i>Princeton Univ.</i>) 1913,	Pittsburgh, Pa.
Buckman, Thomas Ellwood, A.B. 1912, A.M. 1914,	Cambridge
Bugbee, Edwin Percy, S.B. (<i>Tufts Coll.</i>) 1912,	Methuen
Busby, Eldon Durward, A.B. (<i>McGill Univ.</i>) 1913,	Ottawa, Can.
Callister, Alfred Cyril, A.B. (<i>Univ. of Utah</i>) 1915,	Salt Lake City, Utah
Chaffin, George Lawrence, A.B. (<i>Univ. of Utah</i>) 1914,	Farmington, Utah
Cheney, Marshall Chipman, A.B. (<i>Univ. of California</i>) 1909,	Berkeley, Cal.
Clifford, Randall, A.B. 1912,	New Bedford
Cunningham, Thomas Donald, S.B. (<i>Dartmouth Coll.</i>) 1913,	Denver, Colo.
Dallwig, Herbert Carl, S.B. (<i>Univ. of Wisconsin</i>) 1914, S.M. (<i>ibid.</i>) 1915,	Milwaukee, Wis.
Dearing, Arthur Herbert, S.B. (<i>Dartmouth Coll.</i>) 1914,	So. Portland, Me.
Dresel, Rudolph Ludwig, A.B. (<i>Univ. of California</i>) 1913,	San Francisco, Cal.
Fellows, Albert Whittier, S.B. (<i>Dartmouth Coll.</i>) 1914,	Dorchester
FitzGerald, Edmund Boyd, A.B. 1913,	Wollaston

- Goldman, Ahbrum Milton, A.B. (*Univ. of Kansas*) 1914, Kansas City, Mo.
- Gould, Adrian Gordon, PH.B. (*Brown Univ.*) 1913, Youngstown, O.
- Hall, Francis Cooley, LITT.B. (*Princeton Univ.*) 1913, Brookline
- Hutchinson, Charles William, A.B. 1906, A.M. 1907, Framingham Centre
- Hutchinson, Rollo Wilson, A.B. (*Dartmouth Coll.*) 1913, Milford, N. H.
- Isaacson, Abraham Samuel, A.B. (*Brown Univ.*) 1913, Malden
- *Jackson, George Henry, Jr., Newtonville
- Jacobson, Victor Clarence, S.B. (*Univ. of Wisconsin*) 1915, La Crosse, Wis.
- Johnston, James Scott, A.B. (*Univ. of Michigan*) 1910, Ithaca, N. Y.
- A.M. (*ibid.*) 1911, Minneapolis, Minn.
- King, William Robert, S.B. (*Univ. of Minnesota*) 1913, Minneapolis, Minn.
- Klein, Armin, A.B. 1914, Chelsea
- Lurie, Moses Hyman, D.M.D. 1913, Dorchester
- Mabon, Thomas McCance, S.B. (*Princeton Univ.*) 1913, Pittsburgh, Pa.
- McCarthy, James Matthew, Jr., A.B. (*Holy Cross Coll.*) 1913, Woonsocket, R. I.
- MacGhee, Aaron Lawson, S.B. (*Colby Coll.*) 1913, Augusta, Me.
- McIver, Monroe Anderson, A.B. (*Univ. of North Carolina*) 1912, Gulf, N. C.
- Marshall, John Ross, A.B. 1913, Brookline
- Menninger, Karl Augustus, A.B. (*Univ. of Wisconsin*) 1914, S.M. (*ibid.*) 1915, Topeka, Kan.
- Meysenbug, Ludo von, A.B. (*Washington and Lee Univ.*) 1913, New Orleans, La.
- Miller, Howard Stephen, S.B. (*Univ. of Pittsburgh*) 1912, Freedom, Pa.
- Moloney, James Bowe, A.B. 1914, So. Boston
- Neal, Kemp Prather, A.B. (*Trinity Coll., N. C.*) 1913, Monroe, N. C.
- Nisbet, Douglas Heath, S.B. (*Davidson Coll.*) 1913, Charlotte, N. C.
- Norbury, Frank Garm, A.B. (*Illinois Coll.*) 1912, A.M. (*Univ. of Illinois*) 1913, Springfield, Ill.
- *Oerting, Harry, St. Paul, Minn.
- Parkins, Leroy Edward, A.B. (*Simpson Coll.*) 1912, Knowlton, Ia.
- Parmenter, Derric Choate, A.B. 1913, E. Gloucester
- Parsons, Robert Percival, S.B. (*Univ. of Wisconsin*) 1915, Chicago, Ill.
- Paul, Benjamin Delos, S.B. (*Purdue Univ.*) 1912, Brookston, Ind.
- Pennell, Walter Johnson, A.B. (*Bates Coll.*) 1913, Auburn, Me.
- Persons, Carl Clough, A.B. (*Wesleyan Univ., Conn.*) 1913, Maynard
- Rosenberg, Nathan, A.B. (*Univ. of Kansas*) 1915, Kansas City, Mo.
- Saeger, Ernest Tirrill, S.B. (*Dartmouth Coll.*) 1914, Brookline
- *Shirley, John Newton, So. Duxbury

*Strahlmann, Louis,	San Diego, Cal.
Surls, Joseph Kiddoo, A.B. (<i>Williams Coll.</i>) 1913,	Brookline
Thompson, Hartwell Greene, A.B. (<i>Yale Univ.</i>) 1913,	Taftville, Conn.
Wearn, Joseph Treloar, S.B. (<i>Davidson Coll.</i>) 1913,	Charlotte, N. C.
Welles, Edward Sawtelle, S.B. (<i>Iowa State Coll.</i>) 1913,	Los Angeles, Cal.
Wetherell, Bryant Davis, A.B. (<i>Williams Coll.</i>) 1912,	Holyoke
White, Joseph Warren, A.B. 1913,	Roxbury
Wilcox, Charles Frederick, Jr., A.B. (<i>Univ. of Utah</i>)	
1913,	Salt Lake City, Utah
Young, William Bartholomew, A.B. 1913,	Rockland
Zovickian, Hovhannes, PH.B. (<i>Brown Univ.</i>) 1909, A.M.	
(<i>ibid.</i>) 1909,	Brockton

THIRD CLASS

Ames, Forrest Bertram, A.B. (<i>Univ. of Maine</i>) 1913,	Bangor, Me.
Angevine, Robert Winsper, S.B. (<i>Univ. of Rochester</i>)	
1915,	Rochester, N. Y.
Atwater, Reginald Myers, A.B. (<i>Colorado Coll.</i>)	
1914,	Colorado Springs, Colo.
Badger, Omar Perlie, A.B. (<i>Bowdoin Coll.</i>) 1914,	Skowhegan, Me.
Beavers, Benjamin Franklin, A.B. (<i>Wabash Coll.</i>) 1913,	Decatur, Ind.
Blackway, Charles Everett, A.B. (<i>Brown Univ.</i>) 1914,	Fall River
Bullard, Carleton Wheeler, S.B. 1914,	Framingham
Burgess, Barry Hovey, A.B. (<i>Acadia Coll.</i>) 1912, A.M.	
(<i>Harvard Univ.</i>) 1914,	Sheffield Mills Station, N. S.
Callanan, Francis Jervois, A.B. 1914,	Boston
Cameron, Owen John, A.B. (<i>St. Francis Xavier's Coll.</i>)	
1914,	Antigonish, N. S.
Cohen, Hyman, A.B. 1915,	Dorchester
Colby, Fletcher Hatch, S.B. (<i>Dartmouth Coll.</i>) 1914,	Boston
Curtis, Robert Dudley, A.B. 1914,	Dorchester
Daland, Ernest Merrill, A.B. (<i>Brown Univ.</i>) 1912,	Wakefield
Donald, Douglas, S.B. (<i>Univ. of Michigan</i>) 1916,	Detroit, Mich.
Drake, Wallace Horne, S.B. (<i>Dartmouth Coll.</i>) 1914,	No. Weymouth
Edgelow, Arthur Ford Geddes, A.B. (<i>Trinity Coll., Conn.</i>)	
1914,	Catskill, N. Y.
Eisenberg, Adolph Martin, S.B. (<i>Mass. Institute of Tech-</i>	
<i>nology</i>) 1912, A.M. (<i>Harvard Univ.</i>) 1914,	Roxbury
Ellis, Ralph Warner, A.B. (<i>Clark Univ.</i>) 1914,	Worcester
English, Hubert Morton, A.B. (<i>Univ. of Illinois</i>) 1914,	Marshall, Ill.
Finkelstein, Harry Paul, A.B. 1915,	E. Boston

* Admitted on two years of college work.

- Freeman, Mervin, A.B. (*De Pauw Univ.*) 1913, Sullivan, Ind.
 Fremont-Smith, Maurice, A.B. 1914 (1913), Cambridge
 *Gabe, William Edwin, Indianapolis, Ind.
 Gabriels, Joseph Augustus, A.B. (*Holy Cross Coll.*) 1914, Watervliet, N. Y.
 Gallupe, Harold Quimby, S.B. (*Tufts Coll.*) 1911, Everett
 Gear, Patrick Edward, A.B. (*Dartmouth Coll.*) 1915, Holyoke
 Gray, Ellis Barksdale, A.B. (*Trinity Coll., N. C.*) 1914, Gray Court, S. C.
 Gunby, Paul Clark, A.B. 1914, Sherman, Tex.
 Harris, Francis Sterling, PH.B. (*Yale Univ.*) 1914, Cambridge
 Havens, Leon Clive, A.B. (*Colorado Coll.*) 1913, A.M.
 (*ibid.*) 1914, Colorado Springs, Colo.
 Henderson, Charles Smith, A.B. (*St. Francis Xavier's*
 Coll.) 1914, Parrsboro, N. S.
 Holmes, Fred Gooding, A.B. (*Univ. of California*) 1915, Phoenix, Ariz.
 Hopkins, Frederick Sherman, A.B. 1915, Springfield
 Howe, Glover Elbridge, S.B. (*Mass. Agricultural Coll.*)
 1913, Marlboro
 Howes, Seth Francis Harrison, A.B. (*Colby Coll.*) 1914, Southboro
 Hun, Henry Hand, PH.B. (*Yale Univ.*) 1914, Albany, N. Y.
 Hyman, Albert Solomon, A.B. 1915, Dorchester
 Johnson, Ralph Montgomery, A.B. (*Cornell Univ.*) 1914, Ogden, Utah
 Kebabjian, Hrant Setrag, A.B. (*Anatolia Coll.*) 1913, Angora, Turkey in Asia
 King, Donald Storrs, A.B. (*Oberlin Coll.*) 1912, Oberlin, O.
 Kuder, Joseph Matthew, A.B. 1914, Lehigh, Pa.
 Lande, Herman, A.B. (*Yale Univ.*) 1915, Elmira, N. Y.
 Lincoln, James Rufus, A.B. 1914 (1915), Wareham
 Lord, Robert Mendon, A.B. (*Brown Univ.*) 1914, Providence, R. I.
 McClellan, Robert Reyburn, S.B. (*Princeton Univ.*) 1914, Xenia, O.
 McGowan, Daniel Joseph, Jr., A.B. (*Holy Cross Coll.*) 1913, Newport, R. I.
 McIntosh, Rustin, A.B. 1914, New York, N. Y.
 McKittrick, Leland Sterling, S.B. (*Univ. of Wisconsin*)
 1915, Eau Claire, Wis.
 McLaughlin, Edward Aloysius, A.B. (*Brown Univ.*) 1914, Providence, R. I.
 *McNamara, Frank Patrick, Fitchburg
 Marvin, Harold Myers, A.B. (*Davidson Coll.*) 1914, Jacksonville, Fla.
 *Millhoff, Clarence Dimmick, Cleveland, O.
 Milliken, Robert Addison, A.B. (*Princeton Univ.*) 1914, Indianapolis, Ind.
 Morrison, Charles Carr, Jr., A.B. (*Bowdoin Coll.*) 1915, Bar Harbor, Me.
 *Morrissey, Daniel Leo, Bristol, R. I.
 Myers, Franklin Augustus, A.B. (*Lincoln Univ.*) 1913, Brooklyn, N. Y.

* Admitted on two years of college work.

- Nye, Robert Nason, A.B. 1913, Springfield
 O'Meara, John William, A.B. (*Holy Cross Coll.*) 1912, Boston
 Osgood, Herman Ashton, A.B. 1911, A.M. 1915, D.M.D. 1915, Cambridge
 Parkhurst, Albert Elisha, A.B. (*Bowdoin Coll.*) 1913, Presque Isle, Me.
 Parsons, Charles Henry, Jr., S.B. (*Dartmouth Coll.*)
 1916, Centre Conway, N. H.
 Patterson, Russell Hugo, S.B. (*Univ. of Georgia*) 1914, Athens, Ga.
 Rappleye, Willard Cole, A.B. (*Univ. of Illinois*) 1915, Menominee, Mich.
 Rieger, John Benjamin, PH.C. (*Univ. of Michigan*) 1906,
 S.B. (*ibid.*) 1907, S.M. (*George Washington Univ.*)
 1914, Washington, D. C.
 Rock, John Charles, S.B. 1915, Marlboro
 Rönne, George Emil, A.B. (*Brown Univ.*) 1914, Providence, R. I.
 Root, James Harold, PH.B. (*Yale Univ.*) 1914, Brookline
 Rose, Julian, A.B. 1915, Brooklyn, N. Y.
 Schneider, Chester Clayton, S.B. (*Univ. of Wisconsin*)
 1916, Milwaukee, Wis.
 Schussler, Hermann, Jr., S.B. (*Univ. of California*) 1914, San Francisco, Cal.
 Scott, Arthur Carroll, Jr., A.B. (*Univ. of Texas*) 1914, Temple, Tex.
 *Seabury, Robert Brewster, New Haven, Conn.
 Sefton, Wilfred, PH.B. (*Yale Univ.*) 1914, Auburn, N. Y.
 Shields, James Burnett, S.B. (*Dartmouth Coll.*) 1914, Boston
 Shoenfield, Adolph, A.B. 1915, Youngstown, O.
 Sisson, Eugene Pardon, Jr., S.B. (*Colgate Univ.*) 1916, Hamilton, N. Y.
 Smith, Curtis Everett, A.B. (*Univ. of Wisconsin*) 1912, S.M.
 (*ibid.*) 1916, Paris, Tenn.
 Smith, Judson Arthur, A.B. 1915, Hudson Falls, N. Y.
 Spence, Ralph Case, A.B. (*Univ. of North Carolina*) 1914, Kipling, N. C.
 Steenburg, Edmund Kenneth, A.B. (*Univ. of Nebraska*)
 1916, Aurora, Neb.
 Stone, Eric Percy, S.B. 1915, Brookline
 Street, Claudius Augustus, A.B. (*Colorado Coll.*) 1914, Linville Falls, N. C.
 Sullivan, Edward Scanlan, A.B. 1914, Concord, N. H.
 Taylor, Norman Henry, A.B. (*Haverford Coll.*) 1913, A.M.
 (*Harvard Univ.*) 1914, Philadelphia, Pa.
 Thorne, Fred Sanborn, A.B. 1913, Brookline
 Vail, Ramon Montgomery, PH.B. (*Yale Univ.*) 1914, Thompsonville, Conn.
 Waring, Elmer Stebbins, A.B. (*Univ. of South Carolina*)
 1914, Columbia, S. C.
 Wheeldon, Thomas Foster, A.B. (*Univ. of Missouri*) 1915,
 A.M. (*ibid.*) 1915, Moberly, Mo.

Whitney, Raymond Cyrus, S.B. (<i>Middlebury Coll.</i>) 1914,	Millbury
Wickham, George Smallwood, A.B. (<i>Holy Cross Coll.</i>) 1914,	So. Lee
Williamson, Adam Cluness, A.B. (<i>Westminster Coll.</i>) 1911,	
A.M. (<i>Princeton Univ.</i>) 1914,	Brockton
Winsor, Allen Pellington, A.B. 1914,	Fairhaven

SECOND CLASS

Adler, Stuart Welsh, PH.B. (<i>Lafayette Coll.</i>) 1915,	Yonkers, N. Y.
Argo, William Chenault, A.B. (<i>Colorado Coll.</i>) 1915,	Colorado Springs, Colo.
Attridge, Arthur James, A.B. (<i>St. Francis Xavier's Coll.</i>) 1910,	Houlton, Me.
Atwood, Warren Gerald, A.B. (<i>Dartmouth Coll.</i>) 1915,	Beacon-on-Hudson, N. Y.
Ayer, Vernon Alexander, S.B. (<i>Clark Univ., Ga.</i>) 1914,	Gainesville, Fla.
Ayres, Samuel, Jr., A.B. (<i>Univ. of Missouri</i>) 1915,	Kansas City, Mo.
Beasley, Albert Sidney, Jr., A.B. (<i>Lincoln Univ.</i>) 1915,	Macon, Ga.
Blackett, Charles Wesley, Jr., A.B. (<i>Boston Univ.</i>) 1915,	Cambridge
*Boch, Joseph,	Whitman
Boggs, Arthur Gordon, A.B. (<i>Dartmouth Coll.</i>) 1915,	Needham
Breed, William Bradley, A.B. 1915,	Syracuse, N. Y.
Briggs, Wallace Rideout, A.B. (<i>Univ. of California</i>) 1916,	Sacramento, Cal.
Cabot, Irving Lyman, A.B. (<i>Middlebury Coll.</i>) 1915,	Windsor, Vt.
Cheney, Robert Cartwright, A.B. 1915,	Concord
Coleman, George Vincent, A.B. (<i>Holy Cross Coll.</i>) 1915,	Providence, R. I.
Cushing, Kirke Williams, PH.B. (<i>Kenyon Coll.</i>) 1914, A.B. (<i>Yale Univ.</i>) 1915,	Cleveland, O.
Davis, William Lincoln, S.B. (<i>Dartmouth Coll.</i>) 1913,	Concord
Derby, Joseph Patrick, A.B. (<i>Catholic Univ. of America</i>) 1915,	No. Easton
Duffy, James Joseph, A.B. (<i>Holy Cross Coll.</i>) 1915,	Webster
Dunne, Richard Edwin, A.B. (<i>Catholic Univ. of America</i>) 1915,	Derby, Conn.
Fipphen, Clarence Wyman, S.B. (<i>Dartmouth Coll.</i>) 1916,	Concord, N. H.
Fitchet, Seth Marshall, A.B. (<i>Clark Coll.</i>) 1915,	San Antonio, Tex.
Garland, Joseph, A.B. 1915,	Winchester
Goodale, Alfred Montgomery, A.B. 1913,	Cambridge
Greene, Phillips Foster, A.B. (<i>Amherst Coll.</i>) 1915,	Upper Montclair, N. J.
Greenough, James, A.B. 1915,	Cambridge
Griffith, Jesse Brinker, A.B. (<i>Univ. of Pittsburgh</i>) 1915,	Monessen, Pa.

* Admitted on two years of college work.

Haggart, Gilbert Edmund, A.B. (<i>Leland Stanford Jr. Univ.</i>) 1915,	Durango, Colo.
Haines, Samuel Faitoute, S.B. 1915,	Rochester, Minn.
*Harris, William,	New London, Conn.
Herrick, Theodore Pomeroy, A.B. (<i>Yale Univ.</i>) 1915,	Cleveland, O.
Hubbard, Eliot, Jr., A.B. 1915,	Boston
Jackson, Henry, Jr., A.B. 1915,	Boston
Jackson, Howard Burr, A.B. 1915,	Jamaica Plain
Jameson, Charles Harold, A.B. 1916,	Thomaston, Me.
Jones, Chester Morse, A.B. (<i>Williams Coll.</i>) 1913,	Newton Centre
Kurth, Harold Richard, A.B. 1915,	Lawrence
Leddy, Eugene Thomas, A.B. 1915,	Taunton
*Loeb, Robert Frederick,	New York, N. Y.
Long, Graydon, S.B. (<i>Univ. of Rochester</i>) 1912,	Rochester, N. Y.
Loud, Norman Wiley, A.B. 1915,	Colorado Springs, Colo.
Lucy, John Joseph, A.B. (<i>Boston Coll.</i>) 1915,	Somerville
Ludlow, George Craig, A.B. 1915,	Worcester
Lynch, Frederick James, A.B. (<i>Bowdoin Coll.</i>) 1916,	Cambridge
Lynch, James Joseph, S.B. (<i>Notre Dame Univ.</i>) 1915,	Laurens, Ia.
McGarry, Augustine Wilfred, A.B. (<i>St. Mary's Univ.</i>) 1911,	Brighton
McGill, Donald Cameron, A.B. (<i>Cornell Univ.</i>) 1915,	Rochester, N. Y.
Martin, Charles Louis, E.E. (<i>Univ. of Texas</i>) 1914,	Dallas, Tex.
Mason, William, A.B. 1915,	Fall River
Meigs, Joe Vincent, Jr., A.B. (<i>Princeton Univ.</i>) 1915,	Lowell
Mills, Chester Rudolph, S.B. (<i>Colby Coll.</i>) 1915,	Needham
*Nay, Ernest Omar,	Marshall, Ill.
Neal, Paul Nathaniel, A.B. (<i>Trinity Coll., N. C.</i>) 1915,	Monroe, N. C.
Newton, Francis Chandler, A.B. (<i>Amherst Coll.</i>) 1915,	Reading
Nutter, Denton Gove, A.B. 1915,	Newton Upper Falls
O'Connor, Michael John, A.B. (<i>Holy Cross Coll.</i>) 1915,	Providence, R. I.
O'Hara, Dwight, S.B. (<i>Dartmouth Coll.</i>) 1915,	Waltham
Olch, Benedict, A.B. (<i>Brown Univ.</i>) 1915,	Providence, R. I.
Pennoyer, Grant Palmer, A.B. 1915, A.M. 1916,	E. Orange, N. J.
Rees, Henry Maynard, A.B. (<i>Yale Univ.</i>) 1913,	Cleveland, O.
Richards, Lyman Gilder, A.B. 1916,	Fall River
Richards, Thomas Kinsman, A.B. 1915,	Spokane, Wash.
Robinson, Bruce Bowman, A.B. (<i>Baker Univ.</i>) 1914, A.M. (<i>Clark Univ.</i>) 1915,	Rock Island, Okla.
Roe, George Thomas, A.B. (<i>Georgetown Univ.</i>) 1915,	Boston
Root, Howard Frank, A.B. 1913,	Ottumwa, Ia.
Rowell, Hugh Grant, A.B. (<i>Dartmouth Coll.</i>) 1915,	Orleans, Vt.

- Royal, Kent Tyler, s.B. (*Colby Coll.*) 1915, Harvard
 Russell, George Gardiner, A.B. 1916, Cambridge
 Sanders, Morris Blackman, A.B. (*Washburn Coll.*) 1914, Yonkers, N. Y.
 Sargent, Francis Barnard, A.B. 1916, Lexington
 Sasano, Kakutaro Thomas, A.B. (*Colorado Coll.*) 1915, Okayama, Japan
 Schwartz, Charles Wadsworth, PH.B. (*Yale Univ.*) 1914, Suffield, Conn.
 Shedden, William Martindale, A.B. (*Yale Univ.*) 1915, Brookline
 Simpson, Charles Moffett, A.B. (*Trinity Univ., Tex.*) 1914,
 A.M. (*Harvard Univ.*) 1916, Waxahachie, Tex.
 Sisco, Dwight Lewis, A.B. (*Colorado Coll.*) 1913, A.M.
 (*ibid.*) 1914, Colorado Springs, Colo.
 *Snider, Ivan, Boston
 Snow, Bruce, A.B. 1915, Stoneham
 Stein, Louis Charles, A.B. (*Yale Univ.*) 1915, Hartford, Conn.
 Steinberg, Alfred Julian, A.B. (*George Washington Univ.*)
 1914, Washington, D. C.
 Straus, Francis Howe, s.B. 1916, Hinsdale, Ill.
 Supple, William Raymond, A.B. (*Boston Coll.*) 1915, Cochituate
 Thorndike, William Tecumseh Sherman, A.B. 1915, Boston
 Van Stone, Wilfred Douglas, A.B. (*Colorado Coll.*)
 1915, Colorado Springs, Colo.
 Veldee, Milton Victor, PH.C. (*Washington State Univ.*)
 1911, s.B. (*ibid.*) 1913, s.M. (*ibid.*) 1914, Bremerton, Wash.
 Wilder, Edward Wheeler, A.B. 1915, Dorchester
 Williams, Charles Amory, Jr., A.B. 1914, Brookline
 Wright, William Witter, A.B. (*Yale Univ.*) 1912, Putnam, Conn.

 FIRST CLASS

- Adelman, Maurice, A.B. (*Brown Univ.*) 1916, Providence, R. I.
 Alexander, William Hamlet, s.B. (*Lehigh Univ.*) 1916, So. Bethlehem, Pa.
 †Anderson, Howard Taylor, Salt Lake City, Utah
 ‡Berger, Benjamin Jonathan, Halstead, Kan.
 Berman, Saul, A.B. 1916, Roxbury
 §Blake, Philip Warren, Marlboro
 ‡Blumgart, Herrmann Ludwig, Newark, N. J.
 Bowen, Earl Allwood, PH.B. (*Brown Univ.*) 1915, Providence, R. I.

* Has completed work in George Washington University for the Bachelor's degree.

† Admitted on four years of college work.

‡ Admitted on three years of college work.

§ Admitted on two years of college work.

Brittingham, Harold Hixon, A.B. (<i>Yale Univ.</i>) 1916,	Madison, Wis.
Browder, Newton Clarence, A.B. (<i>Butler Coll.</i>) 1916,	Chicago, Ill.
Brown, William Eustis, PH.B. (<i>Lafayette Coll.</i>) 1909,	Boonton, N. J.
Bruning, Paul Henry, A.B. (<i>Boston Coll.</i>) 1916,	Roxbury
Bulger, Harold Aten, S.B. (<i>Ohio State Univ.</i>) 1916,	E. Liverpool, O.
Carbaugh, Glenn Claiborne, A.B. (<i>William Jewell Coll.</i>) 1915,	Kansas City, Mo.
*Carr, Henry Pardee,	Milledgeville, Ga.
Cheley, Glen Evan, A.B. (<i>Colorado Coll.</i>) 1916,	Colorado Springs, Colo.
Clark, James Frederic Wright, A.B. (<i>Boston Univ.</i>) 1916,	Waltham
Clarke, Charles William, S.B. (<i>Iowa State Coll.</i>) 1915,	Fairfield, Ia.
Craig, George Mansfield, S.B. (<i>Wesleyan Univ., Conn.</i>) 1916,	Middletown, Conn.
Cruff, Frederick Ellery, S.B. (<i>Bowdoin Coll.</i>) 1916,	W. Roxbury
Daniels, Lewis Ernest, S.B. (<i>Univ. of Michigan</i>) 1911,	Cambridge
Deacy, William Jeremiah, A.B. (<i>Boston Coll.</i>) 1916,	Lawrence
Denney, Elliott Stevenson, S.B. (<i>Beloit Coll.</i>) 1915,	Aurora, Ill.
Doherty, Gerald Leo, S.B. (<i>Tufts Coll.</i>) 1916,	Dorchester
Doherty, Henry Leo, A.B. (<i>Boston Coll.</i>) 1916,	Stoneham
†Donahoe, Robert Abbott,	Lowell
Duff, Paul Harrington, S.B. (<i>Mass. Institute of Tech- nology</i>) 1916,	Charlestown
Dwyer, Philip Roche, A.B. (<i>Boston Coll.</i>) 1916,	Salem
Emery, Edward Stanley, Jr., A.B. 1916,	Brookline
Field, Henry, Jr., S.B. (<i>Syracuse Univ.</i>) 1916,	Marathon, N. Y.
Finkel, Henry Sumner, A.B. 1916,	Roxbury
Frasch, Otto Robert, A.B. 1913,	Seattle, Wash.
‡Fremont-Smith, Frank, Jr.	Cambridge
Friedberg, Emanuel Benjamin, A.B. 1915,	Pittsburgh, Pa.
Fuller, George Lester, A.B. (<i>Tufts Coll.</i>) 1916,	Braintree
Gamble, Clarence James, LITT.B. (<i>Princeton Univ.</i>) 1914, A.M. (<i>ibid.</i>) 1916,	Pasadena, Cal.
Gayler, Gilbert Ellis, A.B. 1916,	Cambridge
Goldsmith, Lauren Holmes, S.B. (<i>Univ. of Georgia</i>) 1916,	Atlanta, Ga.
†Greene, David Dewey,	Cambridge
Habein, Harold Clinton, S.B. (<i>Carleton Coll.</i>) 1916,	Waseca, Minn.
Halliday, Clarence Walter, A.B. (<i>Univ. of Manitoba</i>) 1916,	Chatham, Ont.
Harbin, Robert Maxwell, S.B. (<i>Univ. of Georgia</i>) 1916,	Calhoun, Ga.
Herman, William, A.B. (<i>Yale Univ.</i>) 1912,	Nashville, Tenn.

* Admitted on two years of college work.

† Has completed work in Harvard College for the Bachelor's degree.

‡ Admitted on three years of college work.

Hitchcock, James, A.B. (<i>Dartmouth Coll.</i>) 1909,	Cambridge
*Hoeffel, Gerald Norton,	Green Bay, Wis.
Hopkins, John Edward, A.B. (<i>Boston Coll.</i>) 1916,	Lawrence
Hudson, Royal Carlton, S.B. (<i>Rhode Island State Coll.</i>) 1915,	Phenix, R. I.
Johnston, Clem Dixon, S.B. (<i>Centre Coll.</i>) 1916,	Crestwood, Ky.
Joyce, Henry Stephen, A.B. 1916,	Ipswich
*Kelly, Otis Francis,	E. Boston
Kennedy, Benjamin Hughes, Jr., A.B. (<i>Univ. of Alabama</i>) 1916,	Birmingham, Ala.
Kitsis, Henry Hyman,	Boston
Lamar, Clifford Lanier, A.B. (<i>Univ. of Alabama</i>) 1916,	Selma, Ala.
Landry, Benedict Bernard, A.B. (<i>Holy Cross Coll.</i>) 1916,	Bristol, Conn.
Leach, Robert Swepson, A.B. (<i>Univ. of Tennessee</i>) 1915,	Wytheville, Va.
Looney, Joseph Michael, A.B. 1916(1917),	Somerville
Lund, Charles Carroll, A.B. 1916,	Boston
Lyon, Don Dee, S.B. (<i>Univ. of Washington</i>) 1914,	Weiser, Idaho
McCalla, Randolph Lucien, A.B. (<i>Georgetown Univ.</i>) 1916,	Boise, Idaho
McKnight, William Hodges, A.B. (<i>Univ. of Texas</i>) 1916,	Mansfield, Tex.
†Marble, Howard Bennett,	Plainville
Merrill, Earl Stephen, A.B. (<i>Univ. of Maine</i>) 1916,	Orono, Me.
Merrill, Ralph Edward, A.B. (<i>Bates Coll.</i>) 1916,	Patten, Me.
Merrill, Urban Howe, A.B. (<i>Bowdoin Coll.</i>) 1916,	Lawrence
Moss, Clifton Lowther, Jr., A.B. (<i>Univ. of Texas</i>) 1916,	Dallas, Tex.
*Murphy, William Andrew,	Boston
Newton, Harlan Fay, A.B. (<i>Yale Univ.</i>) 1916,	Reading
Nichols, Alvord Gates, A.B. (<i>Colgate Univ.</i>) 1916,	Malden
Noyes, Harold Greeley, A.B. 1914, A.M. 1915,	Newtonville
O'Connell, Francis Daniel, A.B. (<i>Boston Coll.</i>) 1916,	Providence, R. I.
O'Connell, Maurice Winthrop, A.B. (<i>Bates Coll.</i>) 1916,	Roxbury
Odian, Missak Garabed, A.B. (<i>Apostolic Coll., Turkey</i>) 1913,	Angora, Turkey in Asia
Ogden, Warner, A.B. (<i>Carleton Coll.</i>) 1916,	St. Paul, Minn.
O'Leary, Joseph James, A.B. (<i>Catholic Univ. of America</i>) 1916,	Haverhill
O'Neil, Eugene Everett, A.B. 1916,	Danvers
†Pantzer, Ralph John,	Indianapolis, Ind.
Park, James Loder, S.B. (<i>Pennsylvania Coll.</i>) 1916,	Indiana, Pa.

* Admitted on two years of college work.

† Admitted on three years of college work.

‡ Admitted on four years of college work.

Partridge, Winthrop Prescott, A.B. 1916,	Cambridge
Peacock, Thomas Gerald, A.B. (<i>Univ. of Georgia</i>) 1915,	Barnesville, Ga.
*Putnam, Ralph Matthew,	New Bedford
Putnam, Tracy Jackson, A.B. 1916(1915),	Boston
Reardon, William Joseph Aloysius, A.B. (<i>Holy Cross Coll.</i>) 1915,	Lowell
†Richards, Paul Snelgrove,	Salt Lake City, Utah
Ricketson, Oliver Garrison, Jr., A.B. 1916,	Fernandina, Fla.
Romberg, Eli Charles, A.B. 1914,	Dorchester
Rypins, Russel Franklin, A.B. (<i>Univ. of Minnesota</i>) 1916,	St. Paul, Minn.
‡Savage, William Elliott,	Belleville, Ill.
*Scudder, Winthrop Davis,	Osterville
Sheehan, John Dennis, A.B. (<i>Holy Cross Coll.</i>) 1916,	Worcester
Smiley, Harold Everett, PH.B. (<i>Brown Univ.</i>) 1912, S.M. (<i>ibid.</i>) 1913,	Providence, R. I.
Smith, Lawrence Weld, A.B. 1916,	Brookline
Smith, Richard Ilsley, S.B. (<i>Tufts Coll.</i>) 1916,	Auburn, Me.
Soletsky, David, S.B. (<i>Coll. of the City of New York</i>) 1914,	New York, N. Y.
*Stanetsky, Harry Moses,	Boston
Stillman, Raymond Durgin, S.B. (<i>Bates Coll.</i>) 1916,	Saco, Me.
§Storrs, Ralph Warren,	Hartford, Conn.
*Swartz, Jacob Hyams,	Boston
Tefft, Richard Carlisle, Jr., A.B. (<i>Yale Univ.</i>) 1916,	Hudson Falls, N. Y.
Thompson, Howard King, A.B. (<i>Colgate Univ.</i>) 1916,	Boston
*Viko, Louis Eindred,	Salt Lake City, Utah
*Weiner, Sidney Hertz,	Boston
Weyler, Henry Leon Cohen, PH.B. (<i>Brown Univ.</i>) 1916,	Providence, R. I.
†Wheeler, Roy Russell,	Rockville Centre, N. Y.
Wiese, Walter John, A.B. (<i>Yale Univ.</i>) 1916,	Meriden, Conn.
Wiggin, Sidney Cushing, S.B. (<i>Tufts Coll.</i>) 1916,	Roxbury
Wilson, Edward Harlan, S.B. (<i>Dartmouth Coll.</i>) 1915,	Columbus, O.
†Wolfsohn, Mast,	San Francisco, Cal.
Wood, Russell, A.B. 1916,	New Bedford
Yoakam, Wayne Addison, S.B. (<i>Denison Univ.</i>) 1916,	Homer, O.

* Admitted on two years of college work.

† Admitted on three years of college work.

‡ Admitted on four years of college work.

§ Has completed work in Trinity College for the Bachelor's degree.

SUMMARY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH	1
CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE	
FOURTH CLASS	68
THIRD CLASS	93
SECOND CLASS	87
FIRST CLASS	109
TOTAL	358

GRADUATES OF COLLEGES

Acadia College	1	Purdue University	1
Apostolic College	1	Rhode Island State College	1
Amherst College	2	St. Francis Xavier's College (N. S.)	3
Anatolia College	1	St. Mary's College	1
Baker University	1	Simpson College	1
Bates College	4	Leland Stanford Jr. University	1
Beloit College	1	Syracuse University	1
Boston College	8	Trinity College (Conn.)	2
Boston University	2	Trinity College (N. C.)	3
Bowdoin College	7	Trinity University (Texas)	1
Brown University	15	Tufts College	6
Butler College	1	University of Alabama	2
Carleton College	2	University of California	5
Catholic University of America	3	University of Georgia	4
Centre College	1	University of Illinois	3
Clark College	1	University of Kansas	2
Clark University	2	University of Maine	2
Clark University (Ga.)	1	University of Manitoba	1
Colby College	4	University of Michigan	6
Colgate University	3	University of Minnesota	2
College of the City of New York	1	University of Missouri	3
Colorado College	10	University of Nebraska	1
Cornell University	2	University of North Carolina	2
Dartmouth College	22	University of Pittsburgh	2
Davidson College	3	University of Rochester	2
Denison University	1	University of South Carolina	1
DePauw University	1	University of Tennessee	1
Georgetown University	2	University of Texas	4
Harvard University	91	University of Utah	3
Haverford College	1	University of Washington	1
Holy Cross College	11	University of Wisconsin	10
Iowa State College	2	Wabash College	1
Illinois College	1	Washburn College	1
William Jewell College	1	George Washington University	2
Kenyon College	1	Washington and Lee University	1
Lafayette College	2	Washington State University	2
Lehigh University	1	Wesleyan University (Conn.)	2
Lincoln University	2	Westminster College	1
McGill University	2	Williams College	3
Massachusetts Agricultural College	2	Yale University	18
Massachusetts Institute of Technology	2		
Middlebury College	2	Total	345
Notre Dame University	1	Counted more than once	26
Oberlin College	1		
Ohio State College	1	Total Number of College Graduates	319
Pennsylvania College	1		
Princeton University	9	Number of Colleges	87

ANNOUNCEMENT FOR 1917-18

The next session of the Medical School begins September 24, 1917. All students are required to register at the Dean's office on this day. Students registering in the Medical School for the first time will meet in the Amphitheatre in the Administration Building of the Harvard Medical School, on Monday, the 24th of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should file an application blank, which can be obtained from the Dean's office, on or before July 1st, 1917.

CALENDAR

1917.

- Sept. 12, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 24, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Friday.* Columbus Day : a holiday.
- Nov. 29, Thursday.* Thanksgiving Day : a holiday.
- Dec. 10, Monday.* Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.
- Dec. 28, Friday.* Last day for receiving dissertations for the Boylston Medical Prizes.

RECESS FROM DEC. 23, 1917, TO JAN. 2, 1918, INCLUSIVE

1918.

- Jan. 14, Monday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degrees of Ph.D. and A.M. in 1918.
- Jan. 28, Monday.* Mid-year Examinations begin.
- Jan. 29, Tuesday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 1, Friday.* **Second half-year begins.**

- Feb. 22, Friday.* Washington's Birthday : a holiday.
April 2, Tuesday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 15 TO APRIL 21, INCLUSIVE

- May 1, Wednesday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
May 1, Wednesday. Last day for receiving applications for the Bullard Fellowships and the Moseley Travelling Fellowships.
May 1, Wednesday. Last day for receiving applications for Scholarships for 1918-19 (except the Cheever, Haven, and Hayden Scholarships).
May 1, Wednesday. Last day for receiving applications of candidates for the degree of M.D. in 1918.
May 30, Thursday. Memorial Day : a holiday.
June 1, Saturday. Examinations begin.
June 20, Thursday. Commencement.

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 22, INCLUSIVE

- Sept. 11, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 23, Monday. **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
Oct. 12, Saturday. Columbus Day : a holiday.
Nov. 28, Thursday. Thanksgiving Day : a holiday.
Dec. 9, Monday. Last day for receiving applications for the Cheever, Haven, and Hayden Scholarships.

INDEX

Names of officers of instruction and administration are set in *small capitals*. The various degrees conferred by the School are indexed under *Degree*; and the hospitals in which the instruction is partly carried on, or supplemented, under *Hospitals*.

- Academic year, 26.
 Adams, A., 93.
 ADAMS, Z. B., *Asst.* and *Fellow*, 16, 37, 61.
 ADLER, H. M., *Asst. Prof.*, 72, 57, 59.
 Administrative board, 24, 28, 31, 64.
 Administrative officers, 22.
 Administrative offices, 22.
 Admission of students, rules concerning, 28. And *see* *Advanced Standing*.
 Advanced Standing, rules concerning admission to, 29.
 ALLEN, F., *Instr.*, 14, 51.
 Anatomy, Department of, 36 *ff*.
 Anatomy, instruction in, 36-40; fourth-year electives in, 65, 66, 80, 81.
 Anatomy, Comparative. *See* *Anatomy*.
 Announcement, 1917-18, 119-120.
 ARNOLD, H. D., *Director*, 11, 25.
 AUB, J. C., *Fellow*, 21, 49.
 Austin Teaching Fellows, 21.
 AYER, J. B., *Instr.* and *Asst.*, 17, 57.
 Bacon, R., 7.
 Bacteriology, instruction in, 43, 44, 52; fourth-year electives in, 67.
 BARNES, H. A., *Instr.*, 14, 62, 63.
 BARNEY, J. D., *Asst.*, 16, 52.
 BEGG, A. S., *Dean* and *Instr.*, 13, 36.
 BELL, R. D., *Fellow*, 20, 43.
 BERNSTEIN, H. S., *Asst.*, 18, 44, 46.
 BILL, J. P., *Instr.*, 19, 47.
 BINNEY, H., *Asst.*, 15, 52, 74.
 Biochemistry. *See* *Biological Chemistry*.
 Biological Chemistry, instruction in, 42; fourth-year elective in, 67.
 BLAKE, G., *Asst.*, 16, 48.
 BLAKE, J. B., *Asst. Prof.*, 11, 25, 51, 54, 55, 74.
 BLODGETT, J. H., *Instr.*, 15, 62, 63, 80.
 BLOOR, W. R., *Asst. Prof.*, 13, 42, 43.
 Bond required of students, 33.
 Boston Medical Library, 91.
 Boston Public Library, 91.
 BOUTWELL, H. K., *Asst.*, 16, 43, 44.
 Bovie, W. T., 93.
 BOWDITCH, H., *Asst.*, 18, 48.
 BOWDITCH, H. I., *Instr.*, 15, 55.
 BOYDEN, E. A., *Instr.*, 20, 36.
 Boyden, W. C., 7.
 Boylston Medical Prizes, 102, 103.
 BRACKETT, C. A., *Prof.*, 10.
 BRACKETT, E. G., *Asst.*, 11, 61.
 BRADFORD, E. H., *Dean*, 10, 12, 22, 23, 24, 25, 93.

- BREMER, J. L., *Assoc. Prof.*, 12, 23, 24, 25, 36, 66.
- BRICKLEY, W. J., *Asst.*, 17, 52.
- BRISTOL, L. D., *Fellow*, 17, 47.
- Brooks, G., 7.
- BROWN, J. H., *Asst.*, 18, 46.
- BROWN, P., *Asst.*, 15, 52.
- BRYANT, J., *Asst.*, 17, 36.
- BUCHOLZ, C. H., *Asst.*, 19, 61.
- BURNETT F. L., *Asst.*, 17, 44, 46.
- BURNS, F. S., *Instr.*, 15, 56, 57.
- Bursar, Office of, 23.
- Cabot, A. T., 93.
- CABOT, H., *Asst. Prof.*, 12, 51, 54, 70, 74.
- CABOT, R. C., *Asst. Prof.*, 11, 48, 50.
- CAHILL, H. P., *Asst.*, 19, 62.
- Calendar, 5.
- Cancer Commission of Harvard University, history of, 92, 93.
- CANNON, W. B., *Prof.*, 12; *Adviser*, 22, 23, 25, 40, 42.
- CATTELL, McK., *Fellow*, 21, 40, 42.
- CHEEVER, D., *Asst. Prof.*, 13, 25, 51, 65.
- CHEEVER, D., *Assoc.*, 13, 36.
- CHRISTIAN, H. A., *Prof.*, 12, 23, 25, 48, 50, 51, 70, 93, 103.
- Clinical advantages of the school, 88 ff.
- CLYMER, G., *Asst.*, 18, 57.
- COBB, F., *Assoc.*, 13, 52.
- COCHRANE, R. C., *Asst.*, 19, 52.
- COFFIN, R. A., *Instr.*, 14, 63, 80.
- Colleges represented by graduates in Harvard Medical School, 118.
- COMMITTEES:
- Animals, 25.
 - Artistic and mem. Objects, 25.
 - Degree Dr. Pub. Health, 25.
 - Examinations, 25.
 - Lectures, 25.
 - Library, 25.
 - Med. Military Education, 25.
 - Microscopes, 25.
 - Professors, 23.
 - Scholarships and Students Aid, 25.
 - Student affairs, 25.
- COOKE, W. P., *Prof.*, 10.
- COOLIDGE, A., *Prof.*, 10, 23, 24, 25, 62, 63.
- Coolidge, C. A., 25.
- Corporation.
- COTTON, F. J., *Assoc.*, 14, 52.
- COUNCILMAN, W. T., *Prof.*, 10, 23, 44, 45, 46, 68, 93.
- CRABTREE, E. G., *Asst.*, 18, 52.
- CROCKETT, E. A., *Asst. Prof.*, 11, 62.
- Croft, Caroline Brewer, foundress of Cancer Commission, 92, 93.
- CUSHING, H., *Prof.*, 12, 23, 25, 51, 54, 73, 75, 88.
- Davis, D. F., 9.
- Dean, office of, 22.
- DEGREE OF
- Bachelor of Medicine, 26.
 - Doctor of Medicine, rules governing candidates for, 28, 29; requirements for, 31; fees and expenses, 33; list of recipients of, February, 1916, 104, and June, 1916, 104-106 (*cum laude*, 105); *magna cum laude*, 106; candidates for, 107 ff.
 - Doctor of Philosophy, requirements for, 32; fees and expenses, 34.
 - Doctor of Public Health, established, 26, requirements for, 32; fees and expenses, 34; recipients of, in 1916, 106; candidates for, 107.
 - Master of Arts, requirements for, 32; fees and expenses, 34.
- Degrees, first conferred by Medical School in 1788, 26.
- Delano, F. A., 8.
- DENNY, G. P., *Asst.*, 20, 49.

- DENORMANDIE, R. L., *Asst.*, 16, 59.
 DERBY, G. S., *Instr.*, 15, 61, 62.
 Dermatology, instruction in, 56; fourth-year electives in, 77, 89.
 DEXTER, F., *Dir. of Scholarships*, 22, 25, 102.
 DODD, W. J., *Instr.*, 17, 51, 71.
 DOISY, E. A., *Fellow*, 21, 43.
 DRINKER, C. K., *Instr.*, 13, 40, 42.
 Duane, W., 93.
 DUNN, C. H., *Instr.*, 12, 55.

 EDSALL, D. L., *Prof.*, 11, 23, 24, 25, 48, 50, 70.
 Electives, fourth-year, 63 ff.
 Elliott, H., 9.
 ELLSWORTH, S. W., *Asst.*, 15, 52.
 ELY, T. W., *Asst.*, 18, 55.
 Embryological collection, 37.
 Embryology. *See* Anatomy.
 EMERSON, F. P., *Asst.*, 14, 62.
 EMMONS, A. B., *Dir. for Appointments*, 22.
 Endicott, W., 8.
 ENGLISH, M. J., *Asst.*, 17, 48.
 ERNST, H. C., *Prof.*, 10, 23, 25, 43, 44, 51, 102, 103.
 EUSTIS, R. S., *Asst.*, 19, 55.
 Examinations, general, 30, 31, practical, 29, 30.

 FABYAN, M., *Asst. Prof.*, 13, 45, 46, 47, 68.
 Faculty Council, 11, 24, 64.
 FAULKNER, W. E., *Assoc.*, 14, 52.
 FAUNCE, C. B., Jr., *Instr.*, 16, 62.
 Fees and expenses, 33 ff.
 Fellowships, 96-98, 101.
 Felton, E. C., 9.
 Fish, F. P., 8.
 FITZSIMMONS, H. J., *Asst.*, 17, 61.
 FLOYD, C., *Instr.*, 16, 43, 44.
 FOLIN, O., *Prof.*, 12, 23, 42, 43.
 FOOT, N. C., *Instr.*, 17, 44, 46.
 FORBES, A., *Instr.*, 13, 40, 42.
 Forbes, E. W., 25.
 Forbes, W. C., 9.
 FOSTER, G. LEB., *Asst.*, 21, 42.
 Fourth-year electives. *See* Electives.
 FRASER, A. MCK., *Asst.*, 17, 37.
 FRASER, S., *Asst.*, 19, 52.
 FROTHINGHAM, C., *Instr.*, 13, 48, 50.
 Frothingham, L. A., 8.

 GALE, H. A., *Asst.*, 16, 55.
 GARDNER, L. U., *Instr.*, 21, 44, 46.
 GHOREYEB, A. A. W., *Asst.*, 17, 44, 46, 93.
 GLOVER, D. M., *Asst.*, 21, 37.
 GOODALE, J. L., *Instr.*, 14, 63.
 GOODPASTURE, E. W., *Instr.*, 19, 44.
 GOSLINE, H. I., *Asst.*, 20, 57.
 Graduate School of Medicine, established, 2, 6, 8; functions of, 26, 64, 94.
 Grant, R., 9.
 GRAVES, W. P., *Prof.*, 12, 23, 59, 60, 76.
 GREEN, R. M., *Instr. and Asst.*, 17, 36, 59, 60, 76.
 GREENE, D. C., *Instr.*, 15, 63.
 GREENOUGH, R. B., *Asst. Prof.*, 12, 25, 51, 54, 55, 93.
 GRINNELL, F. B., *Instr.*, 20, 47.
 GROVER, J. I., *Asst.*, 19, 55.
 Gynaecology, instruction in, 59, 60; fourth-year electives in, 63, 75, 76, 80.

 HALE, W., *Asst. Prof.*, 13, 47, 48.
 HALLER, D. A., *Fellow*, 20, 49.
 Hallowell, J. W., 9.
 HAMMOND, J. W., Jr., *Asst.*, 19, 43.
 HAMMOND, P., *Instr.*, 14, 62.
 HARMER, T. W., *Asst.*, 17, 36.
 HARTWELL, H. F., *Asst.*, 15, 52.
 HARTWELL, J. B., *Asst.*, 16, 52.
 HARVARD MEDICAL SCHOOL, origin of, 26; first degrees conferred by, 26; new buildings of, 26, 27.

- HASKELL, H. H., *Instr.*, 14, 61, 62.
 HENDERSON, F. F., *Asst.*, 18, 52.
 HENDERSON, L. J., *Asst. Prof.*, 13, 22, 32, 42.
 HERMANN, O. J., *Asst.*, 18, 52.
 Herrick, R. F., 9.
 Higginson, F. L., 9.
 Higginson, H. L., 7.
 HILL, L. W., *Asst.*, 20, 55.
 Histology. *See* Anatomy.
 HOLMES, G. W., *Asst.*, 17, 52.
 HOMANS, J., *Instr.*, 16, 51.
 HORNOR, A. A., *Asst.*, 19, 48.
 HORRAX, G., *Asst.*, 20.
 Hospital appointments, 92.
 HOSPITALS:
 American Ambulance of Paris, 92.
 Boston City, 27, 49, 55, 56, 65, 70, 71, 73, 74, 76, 77, 80, 89, 95.
 Boston Dispensary, 27, 55, 56, 60, 72, 76, 80, 89, 95.
 Boston Lying-in, 27, 75, 89, 95.
 Boston State, 27, 89, 95.
 Brigham (Peter Bent), 27, 49, 68, 70, 73, 75, 88, 95.
 Brigham, (Robert), 78.
 Carney, 95.
 Children's, 27, 55, 61, 71, 74, 75, 81, 89, 94, 95.
 Danvers State, 95.
 Free Hospital for Women, 27, 60, 76, 77, 80, 91, 95.
 Huntington (Collis P.) Memorial, 27, 88, 93.
 Infants', 27, 55, 89, 95.
 McLean, 27, 90, 95.
 Massachusetts Babies', 95.
 Massachusetts Charitable Eye and Ear Infirmary, 27, 61, 62, 79, 81, 90, 95.
 Massachusetts General, 27, 46, 49, 55, 56, 57, 58, 62, 68, 70, 71, 74, 75, 77, 78, 79, 80, 81, 88, 95.
 Psychopathic, 27, 59, 78, 94.
 HOWARD, A. A., *Instr.*, 18, 55.
 HOWE, W. C., *Asst.*, 15, 52.
 HOWELL, W. W., *Asst.*, 15, 55.
 HUBBARD, J. C., *Assoc.*, 14, 52.
 Hunnewell, F. W. 2d, 7.
 HUNT, R., *Prof.*, 12, 23, 24, 25, 47, 48, 103.
 HUNT, R. B., *Asst.*, 19, 55.
 Huntington, Mrs. Collis P., 26.
 HUNTINGTON, J. L., *Asst.*, 17, 59.
 Hyde, W. D., 9.
 Hygiene. *See* Preventive Medicine.
 Infantile Paralysis, Commission of, Harvard, 93.
 Instruction, Methods of, 36.
 IRVING, F. C., *Asst.*, 18, 69.
 JACOBSON, C., *Asst.*, 16, 52.
 JONES, D. F., *Assoc.*, 14, 52.
 JOSLIN, E. P., *Asst. Prof.*, 11, 25, 48.
 KELLOGG, F. S., *Asst.*, 18, 59.
 KNOWLES, W. F., *Instr.*, 14, 62.
 KREUTZMANN, H. A. R., *Fellow*, 21, 40.
 LADD, M., *Instr.*, 15, 55.
 Lamont, T. W., 8.
 LARRABEE, R. C., *Instr.*, 15, 48.
 Laryngology and Rhinology, instruction in, 62; fourth-year electives in, 63, 80.
 LAWRENCE, C. H., Jr., *Asst.*, 18, 48.
 Lawrence, W., 7.
 Legal Medicine, instruction in, 46.
 LELAND, G. A., *Asst.*, 19, 37, 93.
 LEWIS, F. T., *Assoc. Prof.*, 13, 23, 25, 36, 65.
 Libraries open to students, 90.
 LINENTHAL, H., *Asst.*, 16, 48.
 Little, C. C., 93.
 LLOYD, H. D., *Asst.*, 16, 56, 57.
 LOCKE, E. A., *Instr.*, 12, 48, 70.
 LODER, H. B., *Instr.*, 18, 51.

- Lodge, H. C., 7.
 LORD, F. T., *Instr.*, 13, 48.
 LOTHROP, H. A., *Asst. Prof.*, 11, 51, 54, 55, 62.
 LOTHROP, O. A., *Asst.*, 18, 70.
 LOVETT, R. W., *Prof.*, 10, 23, 25, 61, 93.
 LOWELL, A. L., *President*, 7, 22, 23, 25.
 LOWREY, L. G., *Asst.*, 20.
 LUND, F. B., *Assoc.*, 14, 52.
 LUTZ, B. R., *Fellow*, 21, 41, 42.
 LYMAN, H., *Fellow*, 16, 43, 93.
 MACAUSLAND, A. R., *Asst.*, 19, 37.
 McCANN, W. S., *Fellow.*, 21, 52.
 MAGRATH, G. B., *Instr.*, 12, 46.
 MALLORY, F. B., *Assoc. Prof.*, 11, 23, 24, 25, 44, 45, 67, 76.
 MARVIN, F. W., *Asst.*, 20, 37.
 Marvin, L. P., 8.
 Mason, Miss I. W., 93.
 MASON, N. R., *Asst.*, 15, 59, 60, 76.
 MEANS, J. H., *Fellow*, 19, 48.
 Medbury, Helen G., 22.
 Medical Schools, terms on which graduates of, may be admitted to advanced standing, 28, 29.
 Medicine, instruction in, 48-51; summer courses in, 81; fourth-year electives in, 63.
 Medicine, Department of, 48 ff.
 Medicine, Legal. *See* Legal Medicine.
 Medicine, Tropical. *See* Tropical Medicine.
 Meyer, G. von L., 8.
 Microscopes, 38.
 MILLER, R. H., *Asst.*, 18, 37, 52.
 MINOT, G. R., *Asst.*, 20, 48.
 MONKS, G. H., *Prof.*, 10.
 MONROE, N. G., *Austin Fellow*, 21, 37.
 Morgan, J. Pierpont, 9, 26.
 Morgan Anatomical Building, 37.
 MORRISON, W. R., *Asst.*, 20, 37.
 MORSE, G. W., *Asst.*, 18, 37.
 MORSE, J. L., *Prof.*, 11, 23, 24, 55, 56.
 MOSHER, H. P., *Asst. Prof.*, 12, 36, 62, 63.
 MOSHER, H. P., *Instr.*, 14, 36.
 MYERSON, A., *Assoc.*, 18, 57.
 Nervous System, Department of diseases of, 57.
 Nervous System, diseases of the, seminary in, 79. *And see* Neurology, Neuropathology, Psychiatry.
 Neurology, instruction in, 58; fourth-year electives in, 78.
 Neuropathology, instruction in, 58, 67, 68; fourth-year electives in, 77, 78.
 NEWELL, F. S., *Asst. Prof.*, 12, 59, 60, 76.
 NICHOLS, E. H., *Prof.*, 11, 23, 46, 51, 54, 73, 103.
 NOYES, A. P., *Asst.*, 17, 57.
 OBER, F. R., *Asst.*, 6, 61.
 Obstetrics, instruction in, 59, 60; summer courses in, 81; fourth-year elective in, 63, 75, 76.
 O'HARE, J. P., *Asst.*, 19, 48.
 OHLER, W. R., *Asst.*, 20, 48.
 OLIVER, E. L., *Asst.*, 16, 56, 57.
 Oliver, H. K., 92, 93.
 Ophthalmology, instruction in, 61; fourth-year electives in, 63, 79, 80, 81.
 Orthopedic Surgery, instruction in, 61; fourth-year electives in, 63, 75, 80, 81.
 OSGOOD, R. B., *Instr.*, 15, 51, 61.
 Otology, instruction in, 62; fourth-year electives in, 79, 80, 81.
 OVERLANDER, C. L., *Asst.*, 17, 49.
 PAGE, C. G., *Instr.*, 14, 43, 44.
 PALFREY, F. W., *Sec'y and Instr.*, 13, 22, 24, 25, 48, 70.
 Palmer, G. H., 8.

- PARKER, W. S., *Asst.*, 19, 49.
 Pathology, instruction in, 44-46; fourth-year electives, 67, 68.
 Pathology, Comparative, instruction in, 46; fourth-year electives, 68.
 PEABODY, F. W., *Asst. Prof.*, 13, 48, 50, 93, 94.
 Pediatrics, instruction in, 55; summer courses in, 81; fourth-year electives in, 63, 71-73.
 PEMBERTON, F. A., *Asst.*, 19, 60, 76, 77.
 PERCY, K. G., *Asst.*, 19, 55.
 PERKINS, J. N., 7.
 PERRY, H. J., *Asst.*, 14, 43, 44.
 Pharmacology, instruction in, 47, 48; fourth-year elective in, 70.
 PHELPS, E. P., *Austin Fellow*, 21, 43.
 Physiology, instruction in, 40-42; fourth-year electives in, 66.
 Physiology, Comparative, instruction in, 42; fourth-year electives in, 66, 67.
 PIERCE, H. F., *Fellow*, 21, 40, 42.
 PIERCE, R., *Bus. Dir.*, 7, 22, 25, 93.
 PLACE, E. H., *Asst. Prof.*, 13, 55.
 PORTER, C. A., *Prof.*, 11, 51, 54, 74.
 PORTER, W. T., *Prof.*, 11, 23, 25, 42, 67, 103.
 POTTER, W. H., *Prof.*, 10.
 POWERS, G. H., Jr., *Instr.*, 16, 62.
 Practical exercises in medicine and surgery required of students, 30.
 PRATT, J. H., *Instr.*, 15, 48, 71.
 President and Fellows, 7.
 Preventive Medicine and Hygiene, instruction in, 47; fourth-year electives in, 69.
 Preventive Medicine and Hygiene, Department of, 26.
 Psychiatry, instruction in, 59; fourth-year elective in, 78.
 QUACKENBOSS, A., *Asst. Prof.*, 11, 61, 62.
 QUINBY, W. C., *Asst.*, 16, 52.
 RACKEMANN, F. M., *Asst.*, 20, 49.
 REDFIELD, A. C., *Austin Fellow*, 21, 40, 42.
 Registration, 28, 29.
 Residence, minimum time of, for candidates for degree of M.D., 29.
 Rhinology. *See* Laryngology.
 RICHARDSON, E. P., *Asst.*, 17, 52.
 RICHARDSON, F. L., *Instr.*, 16, 52.
 RISLEY, E. H., *Asst.*, 17, 37, 93.
 ROBEY, W. H., Jr., *Instr.*, 12, 48, 50.
 Rockefeller, John D., 26.
 Roentgenology, fourth-year elective in, 71.
 ROSE, F. H., *Fellow*, 21, 37.
 ROSENAU, M. J., *Prof.*, 11, 22, 23, 25, 47, 51, 93.
 Scholarships, 89, 98-102.
 SCUDDER, C. L., *Asst.*, 11, 51, 74.
 SEARS, D., 26.
 SEARS, G. G., *Prof.*, 10, 23, 25, 48, 50.
 Sexton, L. E., 8.
 SHANER, R. F., *Fellow*, 21, 37.
 SHAPIRA, A. A., *Asst.*, 20, 37.
 SIMMONS, C. C., *Asst.*, 15, 52, 93.
 SMITH, C. M., *Asst. Prof.*, 11, 56.
 SMITH, E. H., *Prof.*, 10.
 SMITH, R. M., *Asst.*, 17, 55.
 Smith, Theobald, 93.
 SMITH, W. D., *Asst.*, 16, 48.
 SMITH, W. H., *Instr.*, 12, 48.
 SOLOMON, H. C., *Asst.*, 20, 57.
 SOUTER, W. N., *Instr.*, 13, 61.
 SOUTHARD, E. E., *Prof.*, 13, 23, 46, 57, 58, 94.
 SOUTTER, R., *Instr.*, 15, 61.
 SPALDING, F. M., *Instr.*, 15, 61, 62.
 SPOONER, L. H., *Asst.*, 17, 43, 44.
 STEARNS, A. W., *Asst.*, 19, 57.
 STEELE, A. E., *Instr.*, 15, 43, 44.
 STILES, P. G., *Asst. Prof.*, 13, 40.
 Stillman Infirmary, fee to secure privileges of, 34.

- STONE, J. S., *Instr.*, 11, 51, 74.
 STORER, M., *Instr.*, 14, 59, 60.
 STRONG, R. P., *Prof.*, 12, 23, 25, 51.
 Students, admission of. *See* Admission.
 Students, division of, into classes, 29; class lists of, 107-117; summary of lists, 118.
 Studies, Division of, 35.
 Surgery, Department of, 51.
 Surgery, instruction in, 51-55; summer courses in, 81; fourth-year electives in, 63, 73.
 Surgery, Orthopedic. *See* Orthopedic Surgery.
 SWIFT, J. B., *Asst.*, 18, 60.
 SYLVESTER, P. H., *Instr.*, 17, 55.
 Syphilology, instruction in, 56, 57; fourth-year elective in, 77.
 TALBOT, F. B., *Instr.*, 13, 55.
 TAYLOR, E. W., *Asst. Prof.*, 11, 25, 57, 59.
 Thayer, W. R., 8.
 Thayer, W. S., 8, 9.
 THOM, D. H., *Fellow*, 20, 57.
 THOMA, K. H., *Asst.*, 19, 36.
 Thomas, W., 9.
 THORNDIKE, A., *Instr.*, 14, 61.
 THORNDIKE, P., *Asst. Prof.*, 11, 24, 51, 74.
 TITUS, R. S., *Asst.*, 18, 60.
 TOBEY, G. L., Jr., *Instr.*, 16, 62.
 TORBERT, J. R., *Asst.*, 15, 60.
 TOWNE, E. B., *Asst.*, 19, 52.
 Tropical Medicine, School of, 26; instruction in, 51; fourth-year electives in, 71.
 TYZZER, E. E., *Asst. Prof.*, 13, 23, 45, 46, 47, 68, 69, 93, 94.
 Vacation, 26.
 VERHOEFF, F. H., *Instr.*, 12, 61.
 VINCENT, B., *Asst.*, 16, 52.
 VOSE, R. H., *Asst.*, 14, 52.
 Wade, W. H.
 Wadsworth, E., 9.
 WADSWORTH, R. G., *Asst.*, 15, 60, 76.
 Walcott, Henry P., 7, 93.
 WALKER, C. B., *Asst.*, 19, 61.
 WALKER, D. H., *Instr.*, 15, 62.
 WALKER, I. J., *Asst.*, 18, 52.
 Warren, J., 92.
 WARREN, J., *Assoc. Prof.*, 12, 24, 25, 36, 103.
 Warren, John Collins, 92.
 Warren, J. Collins, 25, 92, 93.
 Warren, Anatomical Museum, 92.
 WEBBER, W. G., *Fellow*, 20, 47.
 Wendell, E. J., 9.
 WENTWORTH, M. H., *Asst.*, 17, 52.
 WHITE, C. J., *Prof.*, 11, 23, 56, 57.
 WHITE, P. D., *Fellow*, 20, 49.
 WHITNEY, W. F., *Curator*, 10, 92, 103.
 WHITTEMORE, W., *Asst.*, 17, 52.
 WILLIAMS, J. T., *Asst.*, 16, 60.
 Willson, A. E., 7.
 Wister, O., 8.
 Withdrawal from the School, 29; rules concerning, 34.
 WOLBACH, S. B., *Assoc. Prof.*, 13, 24, 25, 43, 44, 45, 46.
 WOODY, MACI., *Asst. and Austin Fellow*, 18, 21, 44, 46, 52, 73.
 WRIGHT, G. H., *Asst.*, 16, 62, 63.
 WRIGHT, J. H., *Asst. Prof.*, 12, 44, 45, 46, 68.
 WYMAN, E. T., *Asst.*, 20, 55.
 YOUNG, E. B., *Instr.*, 14, 59, 76.
 YOUNG, J. H., *Asst.*, 17, 55.
 ZUCKER, T. F., *Asst.*, 21, 43.

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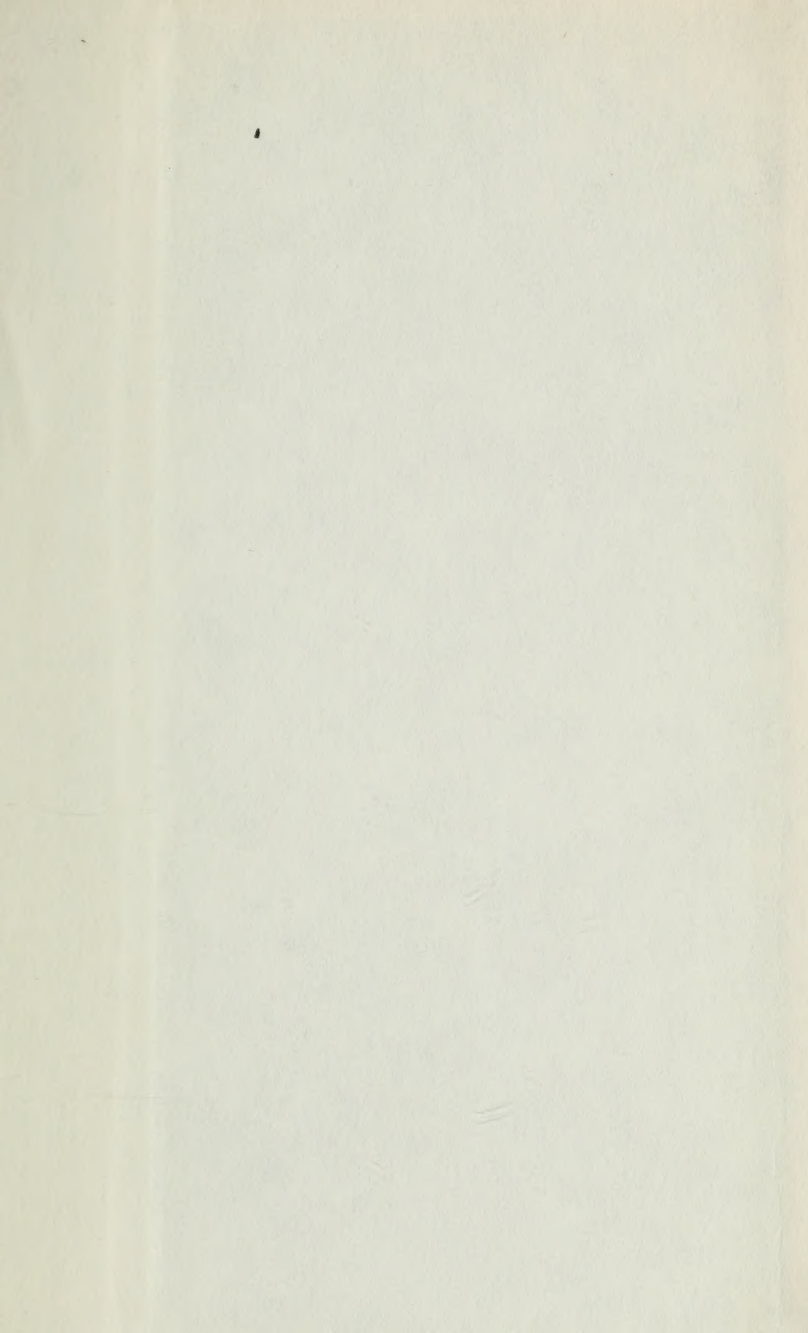
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